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African Bird Club



Bulletin of the African Bird Club

Vol 13 No 2 August 2006

Chapin's Crombec
taxonomic and
conservation status

Taxonomy of the
Crimson-winged Finch

Fraser's and Akun Eagle
Owls: ecology, voice and
territorial competition

Wattled Ibis survey in
Bale Mountains NP,
Ethiopia

Chapin's Flycatcher in
Kakamega Forest, Kenya

Observations hivernales
d'oiseaux en Tunisie

Third report of the
Seychelles BRC

Ethiopian Bush Crow
biology

Atlas or Collared
Flycatcher in Mauritania?

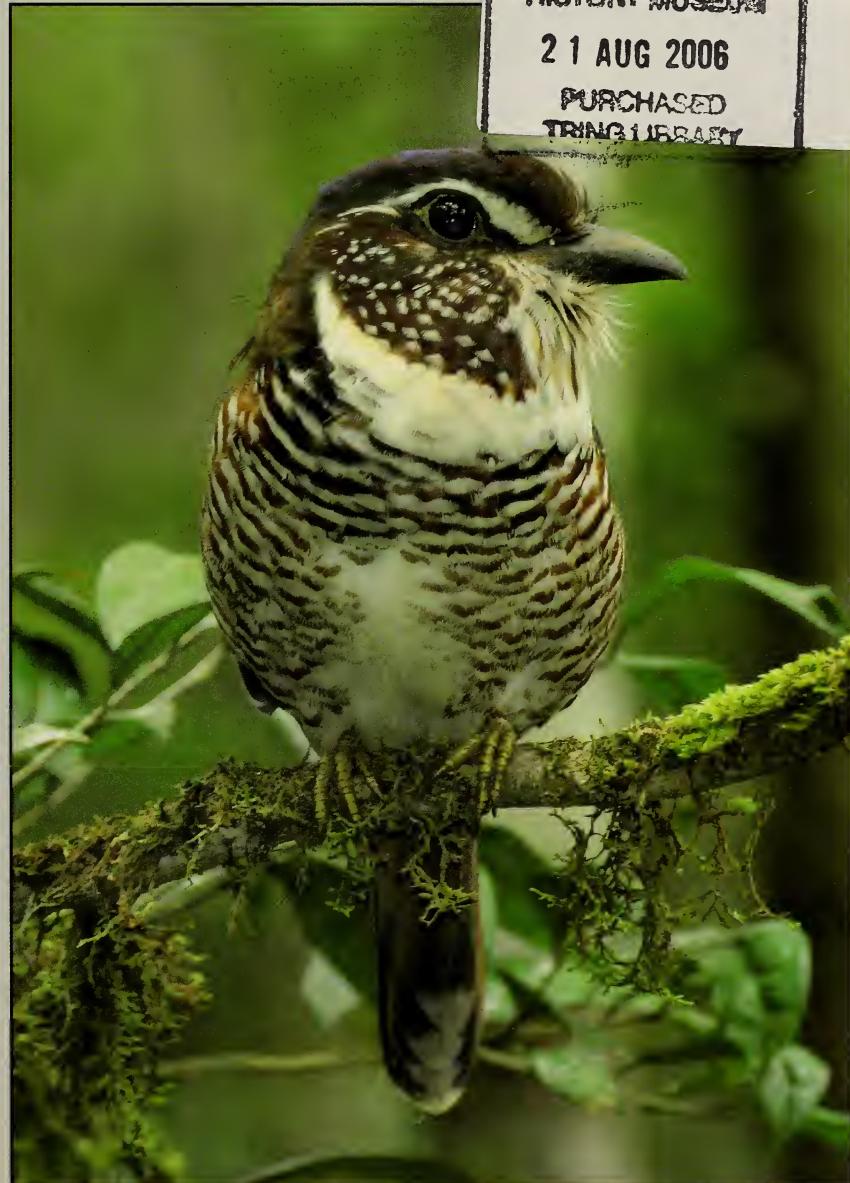
Mangrove Kingfisher
inland in eastern Zambia

Pelagic birding trips
in southern
Mozambique Channel

Madagascar Red Owl in
Ankarana Special
Reserve, Madagascar

Little Brown Bustard

Oriental Honey Buzzard
in Gabon





African Bird Club

The African Bird Club aims to:

- provide a worldwide focus for African ornithology
- encourage an interest in the conservation of the birds of the region
- liaise with and promote the work of existing regional societies
- publish a twice-yearly colour bulletin
- encourage observers to visit lesser known areas of the region
- encourage observers to actively search for globally threatened and near-threatened species
- run the ABC Conservation Programme

Registered Charity No 1053920

ABC particularly wishes to thank its Corporate Sponsors for their invaluable financial support in 2006: Avian Adventures, Avifauna, Birding Africa, Birdquest, Field Guides Inc, Rockjumper Birding Tours, Safari Rangers, Sunbird, Tropical Birding, WildSounds, Wildwings and Zeiss.

ABC Membership

Membership is open to all. Annual subscription rates are:

Individual	Europe & Africa: UK£18	Rest of the World: UK£20
Family	Europe & Africa: UK£21	Rest of the World: UK£23
Student	Europe & Africa: UK£10	Rest of the World: UK£12
Supporting Life	UK£30 minimum	
	UK£350	

To join or for further details please visit the ABC web site (where there are secure online payment facilities) or write to the Membership Secretary—see contact information below.

ABC Website

<http://www.africanbirdclub.org>

ABC Council

John Caddick (Treasurer), Julie Childs, Elaine Cook, Moira Hargreaves, Bill Quantrill, Geoff Randall (Secretary), Claire Spottiswoode, Neil Thomas, Stephanie Tyler and Richard Webb (Chairman).

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Assistant Editor: Ron Demey

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The Bulletin of the African Bird Club

The Bulletin of the ABC provides a forum for news, letters, notices, recent publications, expedition results, reviews and interim publication of studies on African birds by contributors from throughout the world. Publication of results in the Bulletin of the ABC does not preclude publication of final results as journal papers either by the ABC or elsewhere. No

material should, however, be submitted simultaneously to the *Bulletin of the ABC* and to any other publication.

Brief notes for contributors appear elsewhere in this Bulletin and further details are available from the Editor (editor@africanbirdclub.org).

Contents

Bull ABC Vol 13 No 2



News & Comment

114 Club News
Compiled by Bill Quantrill

116 Minutes of the 12th AGM

118 Statement of financial activities and balance sheet

119 Africa Round-up
Compiled by Ron Demey, Peter Lack and Guy Kirwan

127 Conservation Fund

219 Recent Reports
Compiled by Ron Demey

231 Reviews

240 Notes for Contributors

Front cover plate

Short-legged Ground Roller
Brachypteryx leptosomus
by Adam Riley/Rockjumper Birding Tours

Illustrations

Claudia Donati, Pete Leonard,
Craig Symes

Photographs

Arnoud van den Berg, Christian Boix (*Tropical Birding*), John Caddick, W. S. Clark, Daniel Cornélis, Jacques van Esbroeck, Rob Felix, Lincoln Fishpool, Kai Gedeon, Neil Gray, Trevor Hardaker, Catherine Hughes, Guy Kirwan, Pete Leonard, Georges Oliao, Dieter Oschadleus, Alex Paul, Philip Perry, Greg Poole, René Pop, Bill Quantrill, Peter Ryan, Volker Salewski, David Shackelford (Rockjumper Birding Tours), Claire Spottiswoode, Deb Tittle

Features

130 The taxonomic and conservation status of Chapin's Crombec *Sylvietta (leucophrys) chapini* L. D. C. Fishpool and N. J. Collar

136 Taxonomy of the Crimson-winged Finch *Rhodopechys sanguineus*: a test case for defining species limits between disjunct taxa? Guy M. Kirwan, Phil W. Atkinson, Arnoud B. van den Berg and Hadoram Shirihai

147 Ecology, voice and territorial competition of two forest eagle owls, Fraser's Eagle Owl *Bubo poensis* and Akun Eagle Owl *B. leucostictus* Françoise Dowsett-Lemaire

157 Preliminary survey of Wattled Ibis *Bostrychia carunculata* in Bale Mountains National Park, Ethiopia, with notes on abundance, habitat and threats John Hughes

162 Distribution and population size of Chapin's Flycatcher *Muscicapa lendu* in Kakamega Forest, Kenya Simon Nganda Musila, Muchai Muchane and Kariuki Ndang'ang'a

167 Observations hivernales notables d'oiseaux en Tunisie Marcello Grussu, Gianni Conca, Andrea Corso and Habib Dlensi

170 Third report of the Seychelles Bird Records Committee Adrian Skerrett, Michael Betts, Ian Bullock, David Fisher, Ron Gerlach, Rob Lucking, John Phillips and Bob Scott

178 Observations on the biology of the Ethiopian Bush Crow *Zavattariornis stresemanni* Kai Gedeon

189 Atlas Flycatcher *Ficedula speculigera* or Collared Flycatcher *F. albicollis* in Mauritania? Volker Salewski

194 Mangrove Kingfisher *Halcyon senegaloides* inland in eastern Zambia Deb Tittle and Robert J. Dowsett

197 Pelagic birding trips in the southern Mozambique Channel Peter G. Ryan, John Graham and Andrew C. Sutherland

205 Madagascar Red Owl *Tyto soumagnei* in Ankarana Special Reserve, Madagascar Jacques van Esbroeck

207 First record of Oriental Honey Buzzard *Pernis ptilorhynchus* for Gabon and sub-Saharan Africa W. S. Clark and Patrice Christy

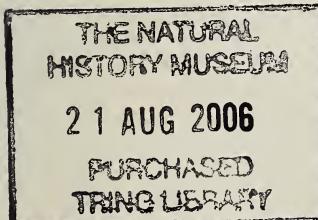
210 First record of Dunlin *Calidris alpina* for Benin Ben van Muyen

212 First record of Pink-billed Lark *Spizocorys conirostris* for Angola Michael S. L. Mills

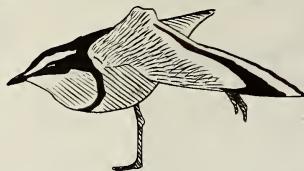
213 First record of Sooty Gull *Larus hemprichii* for Seychelles Frankie E. Hobro and Teresa Catry

215 First record of Blue Quail *Coturnix adansonii* for Swaziland Philip Perry

217 Little-known African bird: Little Brown Bustard *Eupodotis humilis* Paul Goriup



Club News



ABC at the Lee Valley

Birdwatching & Wildlife Fair

This year for the first time ABC was represented at the Lee Valley Birdwatching & Wildlife Fair. This annual event takes place over two days in February at the Lee Valley Park north of London, and is claimed to be the biggest event of its kind in England, apart from the national British Birdwatching Fair, held at Rutland Water in August.

Lee Valley Park is renowned as one of the best sites in Britain for seeing Eurasian Bitterns *Botaurus stellaris* in the wild and the fair organisers included guided walks around the reserve as one of the special attractions to tempt visitors to the fair. In addition, there was a lecture programme, bird-themed activities for children and over 100 stands manned by a wide range of exhibitors. Our main purpose in participating was to make the Club better known to birders from the London area and also to provide a meeting point for our members in the region. We recruited several new members and sales of Club merchandise ensured that we covered our costs. We also used the occasion to publicise the wealth of material now available on the ABC website.

Contributed by Neil Thomas

ABC website

The ABC website continues to attract some 15,000 unique visitors per month from a wide range of countries. There have been many significant developments in recent months which include: the redesign of the online sales and membership pages to simplify ordering of merchandise, bulletins and trip reports; a new look for the sponsorship page; the inclusion of recent news items on the home page; improved links to the country pages and to the photographic database; the addition of an

Africa section to the country pages which gives an overview of Africa and its birds; the addition of an Azores section to the country pages; the addition of a books and sounds page for each country.

The books and sounds pages are not only a useful resource for those travelling to a country, but you can order publications from our sponsor, WildSounds, directly via the website link and generate a donation for the Club. Please consider buying all your birding books and CDs via such means as you will thereby make a significant contribution to the ABC Conservation Fund.

The African Bird Image Database, AFBID, has become a leading site for the hosting of images of birds photographed in Africa. At the time of writing, 199 photographers have submitted 4,275 photographs of 1,286 species. This is a remarkable achievement in the first eight months and has certainly exceeded all our expectations. The ID Challenge has increased in popularity and we are currently on the fourth challenge. This is a collaborative project between ABC and our sponsor Birding Africa whereby we aim to increase interest in African birds and stimulate debate on identification challenges. See if you can complete the challenge and win a prize.

We plan to continue developing the site to ensure that it promotes the Club successfully as well as acting as a prime source of information about Africa and its birds. Please ensure that you visit the site regularly at www.africanbirdclub.org. We will of course welcome new contributions such as bird lists, site information, conservation details and photographs, all of which can be sent via info@africanbirdclub.org. We will also be pleased to receive ideas for improvements to the site.

Contributed by John Caddick

ABC Council—vacancy for Membership Secretary

New volunteers for Council are always welcome. The Club's Constitution places a four-year limit on the time ordinary Council members can serve (holders of executive posts can continue longer if they wish). This is to ensure a regular intake of new people with fresh ideas. It also means that anyone volunteering for Council knows that they are not tied to an open-ended commitment. If you have some spare time and think you would like to help your Club by joining the Council, please inform the Chairman. In particular, we shall be looking for a new Membership Secretary when Bill Quantrill completes his latest stint as a Council member, in March 2007. The job involves dealing with membership correspondence and maintaining the Club's membership database. The Membership Secretary is also responsible for the distribution of each new issue of the Bulletin as it appears and responding to requests for back issues. If you might be interested, please contact Bill at membership@africanbirdclub.org and he will provide a more detailed account of what is involved.

2007 AGM

For many years, the ABC AGM has been held (at minimal cost) at the ABTA offices in London, but this venue is no longer available, forcing the Club to find a new one for 2007. Most suitable venues in London are quite expensive so we have decided to use a venue away from London in 2007. The excellent facilities at the British Trust for Ornithology in Thetford are available to the Club free of charge, meaning continued savings for the benefit of conservation in Africa. Consequently, the 2007 AGM will

be held on Saturday 31 March, at The Nunnery, Thetford.

We appreciate that Thetford is less convenient than London for some members, but it is readily reached by rail (on the Cambridge–Norwich line) and by road with free parking at The Nunnery. The closest international airports to Thetford are Stansted and Norwich. Thetford is in the Brecks and March is particularly good for displaying Northern Goshawks *Accipiter gentilis*, Woodlarks *Lullula arborea* and Lesser Spotted Woodpeckers *Dendrocopos minor*. Stone Curlews *Burhinus oedicnemus* should be back at nearby Weeting Heath. Slightly further afield, the RSPB's new flagship Lakenheath Fen reserve is within 30 km whilst for those wanting some fresh air over lunch the Nunnery Lakes are right on the BTO's doorstep. Why not make a weekend of it and spend Sunday birding in the Brecks?

We are not suggesting that Thetford will become the permanent home of the AGM, but feel that it does provide an interesting alternative to London. We hope to see many of you in March.

This announcement constitutes official notification of the AGM as required by the Club's constitution. Full details of the AGM agenda and programme for the day, with information concerning times of the meeting will be posted to all UK-resident members in early 2007. To save postage, the programme will not be automatically distributed to members living outside the UK. Any overseas member wanting a copy, either by post or e-mail, can apply to the Club Secretary. Details will also appear on the Club website.

ABC Sales

Enclosed with this bulletin is the Club's latest catalogue detailing items currently available from the Sales Officer. Items range from clothing via mugs to trip reports and all proceeds help raise funds for conservation projects within Africa. We have added a number of new items to the sales list this autumn and have

discounted some items to clear old stock. Items can be ordered using the enclosed form or alternatively via the link on the Club's website.

Mobiles to aid conservation

Charity Mobiles is a UK firm that operates a scheme whereby they donate UK£25 to charity each time someone purchases a mobile telephone from them. We are pleased to announce that we have agreed a deal with the firm to include the African Bird Club in the scheme. If you are a UK resident thinking of buying a new mobile, please visit the ABC website, click on the Charity Mobiles and review their offers. If you decide to make a purchase, you will have the added satisfaction of knowing that you are also generating a contribution to the ABC Conservation Fund.

Contributed by John Caddick

ABC London Meeting and AGM

Around 80 members and guests attended a packed day in London. In his opening address, ABC President, Martin Woodcock talked of his concern about the effect of global warming on Africa's birds. The theme was mirrored by Leon Bennun of BirdLife International, who spoke in detail about the threats facing birds in Africa. He explained that of the 1,950 species in sub-Saharan Africa some 910 are restricted to a particular biome and 233 globally threatened. Madagascar, Zambia and Tanzania have the most threatened species with over 30 each. St Helena has only a few species but 31% are threatened. Threats are many and varied, but c.70% revolves around habitat loss, which BirdLife has identified as a key challenge. Other major problems include trade in endangered species and the negative effects of invasive species. He explained that much work is being done to protect sites and there are now 1,228 Important Bird Areas in Africa, plus 38 Endemic Bird Areas, but despite many initiatives the majority of important wetlands in Africa are not registered under the Ramsar Convention.

Richard Mellanby spoke about the 2005 expedition to Yabello reserve in southern Ethiopia. This ABC-supported project set out to gather data on two poorly known species. Some 418 observer-days of field work were undertaken with point counts and line transects being used to assess bird numbers.

Stresemann's Bush Crow

Zavattariornis stresemanni has been declining in the area for some time and this may be directly linked to the reduction in grazing and an increase in cultivation. The species was mainly found in areas of fairly sparse *Acacia* and *Commiphora* scrub, though good numbers were seen near villages. White-tailed Swallow *Hirundo megaensis* was found on only 27 days, mainly in areas of *Acacia* scrub. Man-made features such as river embankments were favoured sites. The opportunity was also taken to survey the avifauna of the sanctuary: 250 species were observed. Apart from the field work, the project team is creating a visitor guide for the Yabello area.

Neil McCulloch talked about the decline of the St Helena Plover *Charadrius sanctaehelenae*, popularly known as the Wirebird. He described how the species' population has reduced to just 200 individuals. It suffers from poor breeding success with only one chick being fledged from every four broods. The



Martin Woodcock (Bill Quantrill)

main factor limiting its success is the increase of vegetation in its grassland habitat. In past years this growth had been checked by grazing cattle, but agricultural economics have forced farmers to move out. Plans for an airport on the island have dismayed some conservationists but his view was that the overall benefits of tourism from the proposed development, together with the mitigation measures being taken to compensate for the habitat loss caused by the airport construction, were likely to outweigh any negative impacts.

Finally, John Caddick described the highly successful ABC-sponsored tour to Angola in October 2005. The tour was organised by Birding Africa, one of ABC's corporate sponsors. Profits were donated by Birding Africa to the ABC Conservation Fund. Nearly 270 species were seen in one week including key species such as Grey-striped Francolin *Francolinus griseostriatus*, Red-backed Mousebird *Colius castanotus*, Pale-olive Greenbul *Phyllastrephus fulviventer*, Bubbling Cisticola *Cisticola bulliens*, Pulitzer's Longbill

Macrosphenus pulitzeri, Gabela Akalat *Sheppardia gabela*, Angola Cave Chat *Xenocopsychus ansorgei*, White-fronted Wattled-eye *Platysteira albifrons*, Montane Double-collared Sunbird *Cinnyris ludovicensis*, Gabela Helmet-shrike *Prionops gabela* and Golden-backed Bishop *Euplectes aureus*.

Contributed by Keith Betton

Minutes of the 12th AGM of the African Bird Club

held at the Association of British Travel Agents (ABTA)

68–71 Newman Street, London W1 at 13.45 hrs on Saturday 11 March 2006

Present

The following registered their attendance at the meeting: Desmond Allen, John Archer, Helen Baker, M. J. Barden, David Barker, Stella Beavan, P. J. Belman, Keith Betton, Michael Bird, Richard Bosanquet, Chris Bowden, Adrian & Frances Buckel, John & Caroline Caddick, D. R. Calder, Mark Catterall, Bob Cheke, Julie Childs, Peter Cowan, Dr J. P. Darch, Mr & Mrs C. M. Dickson, Bob Douthwaite, David Ebbutt, S. Ecclestone, S. John Farnsworth, David Fox, Neil Gartshore, Martin Gauntlett, Tony Gibbs, John M. Green, D. S. Grunberg, John Hammick, Moira Hargreaves, Roy Hargreaves, Chris Hendley, John Hughes, Peter Jones, Michael Kings, Russell Leavett, Jeremy Lindsell, Neil McCulloch, Duncan Macdonald, Bob Medland, Richard Mellanby, Andy Merritt, David Murdoch, Mike Anthony Mwangi, Anne Nason, Ralph Parks, Eric Pilcher, David Porter, Bill Quantrill, Rowena Quantrill, Hugo Rainey, Geoff & Bev Randall, Steve Rooke, P. J. Sellar, Dave Stoddard, John Tarlton, Neil & Jill Thomas, Steph Tyler, Richard Webb, Davis & Kay White, Barbara & Martin Woodcock, and Simon Wotton.

1. Apologies for Absence

Apologies were received from: Phil Atkinson, Peter Basterfield, Mike Blair, Tony Clarke, Elaine Cook, Ron Demey, David Fisher, Stan Fourie, Guy Kirwan, Pete Leonard, Flip Bruce Lockhart, Clive Mann, Nigel Redman, Yvonne Savidge, Keith J. Seaton and Claire Sportiswoode.

2. Minutes of the Last Meeting

The Minutes of the 11th AGM had been published in the ABC Bulletin and copies were distributed at the meeting. The minutes were approved unanimously.

3. Matters arising

There were no matters arising.

4. Report of Council for 2004

The Chairman presented the Council's report (as summarised below) with the aid of a PowerPoint presentation. Club Membership is currently 1,234. Although 95 new members joined during 2005, 99 previous members did not (a net reduction of four in total membership). Membership in Africa continues to be facilitated by local payment schemes in Kenya, Madagascar, Seychelles, South Africa, Uganda and

Zimbabwe, and through the Supported Membership Scheme. The format of the Bulletin has changed; it is now published with perfect binding to permit an increased number of pages, and it now bears the Egyptian Plover logo as redesigned by Pete Leonard. With the increasing availability of good-quality digital photographs, Council has changed the front cover of the Bulletin.

2005 saw the first Birding Africa/ABC Conservation Fund Tours and their success means the initiative will be continued with tours in 2006 to Gabon and Angola. The Terms of Reference of Country Representatives have been updated to ensure compliance with UK Charity Commission rules and to improve communication with the Representatives.

As usual, the Club had a stand at the British Birdwatching Fair at Rutland Water and for the first time at the Lee Valley Birdwatching & Wildlife Fair in February 2006. The Club made a presentation at the Scottish Ornithologists' Club conference and was represented at the annual meeting of The Hampshire Ornithological Society. Council continues to seek appropriate new audi-

ences for the promotion of ABC's aims.

Conservation awards totalling UK£6,700 were made during 2005 to projects including: Congo Bay Owl in DR Congo; eradication of House Crows in South Africa; surveys of the Yavello area and the highlands of Ethiopia; Taita Falcons in South Africa; Botswana Bird Guide; translocation of Mauritius Fody; and an expedition to the Comoros.

New Council members are sought in order to reduce the number of tasks for which each Council member is responsible. In addition to the AGM, Council meets three times each year, usually in London. For further information Club members should contact the Chairman or Secretary through the website.

The Club's thanks were proffered to each of the ten corporate sponsors for their continuing support and to everyone who had so generously supported the Club's work in 2005. The Chairman drew attention to the retirement from Council of Keith Betton and thanked him for his great contribution over the preceding seven years as Vice-Chairman, Information Officer/Librarian, Meetings Officer and Chair of the Bulletin Editorial Board. Thanks were also offered to Keith and ABTA for the use of their offices for the London Meeting and Council meetings.

5. Presentation of the Accounts for 2005 and Treasurer's Report

Copies of the summarised accounts for the year to 31 December 2005 were distributed at the meeting. In his presentation of the Accounts, the Treasurer drew attention to the following points. Total income for 2005 was slightly less than 2004, primarily due to a large donation and the repayment of an unused award in the earlier year. The cost of producing the Bulletin has increased as a result of the introduction of perfect binding and the increased number of pages. Notwithstanding this, total expenditure in 2005 had been carefully managed and was slightly less than in 2004. This had been

achieved in part by limiting the amount disbursed as grants. The Birding Africa/ABC Conservation Fund tours had generated UK£700 for the Fund. In respect to the balance sheet, the Treasurer explained that the amounts shown as falling due to creditors represented sums arising from the advance payment of annual and life memberships; the designated fund represented monies set aside for PAOC 2008 (Council has previously resolved that the Club would set aside UK£1,000 per annum to provide for ABC's representation at the conference and to support the attendance of African nationals). The sum of UK£6,215 shown within the Conservation Fund was not all immediately available for dispersal as grants, as it included stock amounting to UK£2,205, and the balance has already been reserved or awarded to specific projects. The Treasurer advised that the accounts presented to the AGM were only a summary of information and that members could obtain a copy of the full accounts and the annual report of the Members of Council to the Charities Commission by applying to him at the Club's correspondence address. Approval of the accounts was proposed by Keith Betton, seconded by Martin Woodcock and unanimously agreed by the meeting.

6. Election of Council

The following were proposed by Roy Hargreaves, seconded by Keith Betton and unanimously elected by the meeting to the African Bird Club Council for 2006: Stella Beavan, John Caddick, Julie Childs, Elaine Cook, Moira Hargreaves, Bill Quantrill, Geoff Randall, Claire Spottiswoode, Neil Thomas, Steph Tyler and Richard Webb.

7. Election of Executive Officers

The following were proposed by Moira Hargreaves, seconded by Martin Woodcock and unanimously elected by the meeting as Executive Officers of the Club for 2006:

Chairman:	Richard Webb
Vice-Chairman:	Vacant
Treasurer:	John Caddick
Secretary:	Geoff Randall

8. Appointment of Auditor

Messrs Burton Sweet were proposed by Roy Hargreaves, seconded by John Archer and unanimously elected by the meeting as Independent Examiners for 2006.

9. Any Other Business

No matters were raised.

The meeting closed at 14.15 hrs.

Simon King - Wildlife Cameraman and TV Presenter of Big Cat Diaries and Spring Watch will be attending the 2006 British Birdwatching Fair

A Carl Zeiss Event

Question Time with Simon King in the Events Marquee

Simon King joins the Bird Fair to talk about his various film projects and welcomes questions from the audience. Simon will be hosting two such events:

Friday 18th August, 2.30-3.15pm

Saturday 19th August, 12.45-1.30pm.

Simon will also be on the Carl Zeiss Stand OM3 in the Optics Marquee for autograph signing sessions at the following times:

Friday 17th August, 3.30-4.00pm

Saturday 18th August, 10.00-10.30am

Tel: 01707 371350

Fax: 01707 871287

Carl Zeiss Ltd

P O Box 78

Welwyn Garden City
Herts AL7 1LU

Statement of financial activities—year ended 31 December 2005

	Unrestricted funds £	Restricted funds £	Total funds 2005 £	Total funds 2004 £
Incoming resources				
<i>Incoming resources from generated funds</i>				
Voluntary income	6,372	3,450	9,822	10,949
Activities for generating funds	5,397	-	5,397	7,011
Investment income	884	-	884	492
<i>Incoming resources from charitable activities</i>				
Subscriptions	18,949	-	18,949	18,366
Total incoming resources	31,602	3,450	35,052	36,818
Resources expended				
<i>Cost of generating funds</i>				
Fundraising/trading: cost of goods sold and other costs	2,376	-	2,376	2,602
<i>Charitable activities</i>				
Grants payable	2,050	3,650	5,700	9,000
Cost of activities in furtherance of charity's objects	15,616	-	15,616	14,151
Support costs	2,837	-	2,837	2,657
<i>Governance costs</i>				
1,125	-	-	1,125	1,403
Total resources expended	24,004	3,650	27,654	29,813
Net incoming/(outgoing) resources	7,598	(200)	7,398	7,005
Total funds at 1 January 2005	6,935	728	7,663	658
Total funds at 31 December 2005	14,533	528	15,061	7,663

The Charity has no recognised gains or losses other than the results for the year as set out above.
All of the activities of the charity are classed as continuing.

Balance sheet—year ended 31 December 2005

	2005 £	2004 £
Current assets		
Stock	2,205	2,226
Cash at bank	30,468	20,648
	32,673	22,874
Creditors: amounts falling due within one year	(6,554)	(5,711)
Net current assets	26,119	17,163
Creditors: amounts falling due after one year	(11,058)	(9,500)
Net assets	15,061	7,663
Unrestricted funds		
Designated fund	1,000	-
Club fund	7,318	3,396
Conservation Fund	6,215	3,539
Restricted funds	14,533	6,935
	528	728
	15,061	7,663

A full copy of the annual report of the Trustees and financial statements can be obtained from the Club Treasurer.

Africa Round-up



General

A new form of Eastern Olivaceous Warbler

Following DNA studies, the *Hippolais* warbler found in the mangroves and other coastal habitats of northern Somalia has been formally described as a new form of Eastern Olivaceous Warbler *Hippolais pallida alulensis*. The name refers to Alula, the place where four specimens were collected by John Ash and John Miskell in 1979–80. The form resembles *H. pallida elaeica*, which occurs as a migrant to the same area, but is smaller, with a more rounded wingtip. In size and structure it matches the southern Saharan resident *H. p. laenenii*, but it is darker, greyer brown, and lacks the sandy or buffy colour of this and other African desert races of Olivaceous Warbler. Its striking resemblance to Sykes's Warbler *H. rama* made it impossible to assign it conclusively to the *H. pallida* complex from measurements and morphological characters alone.

Source: *Ibis* 147, pp 841–843

Verreaux's Eagle or Verreaux's Eagle?

In a previous Africa Round-up (*Bull. ABC* 13: 11) it was reported, based on Phil Hockey's note in *Africa—Birds & Birding* 10 (4): 18 (2005), that *Aquila verreauxii* was named for the two Verreaux brothers, Jules and Edouard, and should thus be spelt Verreaux's Eagle (and not Verreaux's Eagle). If this were so, the scientific name ought to have been *verreauxiorum* (plural of *verreauxii*) and would need to be changed. However, it appears that Lesson's original description points to this bird having been named after just one Verreaux (in this case Jules). To conclude: the name of this eagle should remain as it has



Verreaux's Eagle *Aquila verreauxii*
(Pete Leonard)

been since its discovery, Verreaux's Eagle *Aquila verreauxii*. In addition, the name *verreauxii*(i) appears not in seven avian genera, as stated in the note, but in 12.

Source: R. J. Dowsett in litt.,
March 2006

Review of Palearctic migrants in Africa

Volker Salewski and Peter Jones have reviewed Palearctic migrant passerines in Afrotropical environments and concluded that few generalisations can safely be made about competition and co-existence with Afrotropical species, and that adaptive explanations for observed behaviours are largely lacking. A lot of contradictory evidence is reviewed and there is a plea for more precise definitions and detailed field work.

Source: *J. Orn.* 147, pp 192–201

Status of Aquatic Warbler in Africa

The globally threatened (Vulnerable) Aquatic Warbler *Acrocephalus paludicola* breeds principally in north-east continental Europe, but its migration routes and wintering areas are poorly known, thus constituting a significant gap in efforts to protect the species. A desk study, conducted between 1998 and 2004, revealed records in only five countries (Egypt, Ghana, Mauritania, Morocco and Senegal) post-1980 (records are available for nine countries in total). Data are limited but suggest that Aquatic Warbler migrates through north-west Africa and winters in western sub-Saharan Africa in areas similar to those which it uses for breeding, and perhaps further south than was previously acknowledged, even to wetlands in Central and East Africa.

Source: *Bird. Conserv. Intern.* 16,
pp 33–56



Aquatic Warbler *Acrocephalus paludicola* (Georges Olioso)

Geophagy by African Olive Pigeons

Quite large flocks (50–180) of African Olive Pigeon *Columba arquatrix* have been observed feeding on damp clay soil and they also take some grit. Colleen Downs suggests this is to obtain salts and trace elements in a normally purely frugivorous diet, but it also could serve a



African Olive Pigeon *Columba arquatrix* (Dieter Oschadleus)

buffering purpose (the soil has a high pH) and perhaps to negate or absorb the effects of secondary compounds in the fruit the bird consume.

Source: Ostrich 77, pp 40–44

The solution to 'Moreau's paradox'?

'Moreau's paradox' notes that Palearctic migrants wintering in West Africa successfully garner fat reserves prior to spring migration during the dry season when such resources might be considered at their lowest. New research by Volker Salewski and his colleagues, based on work in the Mauritanian Sahara, suggests that such long-distance migrants (especially warblers of various genera) practice nectarivory, visiting various flowering trees which also attract insects (e.g. *Ziziphus* and *Acacia*) at this season, and that this phenomenon might offer the solution to 'Moreau's paradox.'

Source: Br. Birds 99, pp 299–305

West & Central Africa

Waterbird numbers in Mali's inner Niger delta

The results of aerial counts of waterbirds in the inner Niger delta in Mali, carried out in January 1999, 2000 and 2001, permit revision of the estimated populations of several heron, duck and wader species present during this period. For some 20 species, the estimates over the three years were the highest or among the highest registered for c.30 years. In 2001, a total of 1,365,000 birds was

counted, illustrating the importance of this wetland. However, declines of some species are noted and a correct interpretation of the results requires data on the numbers of waterbirds present during the same period in at least two other major West African wetlands, the Senegal delta and the Lake Chad basin.

Source: Malimbus 28, pp 7–17

Dja Biosphere Reserve, Cameroon

A recent e-mail from Eddie Williams expresses concern as to the state of the Dja Biosphere Reserve (the largest protected area in Cameroon), following a visit he made in March 2006. Poaching within the reserve appears to be running unchecked. Hunted Blue Duikers *Cephalophus monticola* were being transported across the River Dja from the park to the village of Somolomo, gunshots were regularly heard in the Boumir area 30 km inside the park, and the remains of monkeys and three species of duiker were found abandoned by poachers. Several spring traps were also found and many discarded shotgun cartridges. ECOFAC, who manage the conservation of the Dja reserve, appears unable to protect the park due to lack of money and the ECOFAC Conservateur in Yaoundé, Etienne Nlegue, informed Eddie that staff in the park had not been paid for six months.

Despite this, Eddie informs us that Dja provides a unique opportunity for viewing both forest mammals and birds. Game remains plentiful in

the Boumir area and he recorded eight species of primate including Western (Lowland) Gorilla *Gorilla gorilla* and Chimpanzee *Pan troglodytes* whilst African Savanna Elephant *Loxodonta africana* is still common. Extensive rocky outcrops rising above the forest provide excellent and unique viewing opportunities. For birders, what is probably the world's largest Grey-necked Picathartes *Picathartes oreas* colony is also near Boumir, with over 100 nests, and one can be surrounded by the hissing and growling birds. Bates's Weaver *Ploceus batesi* and Dja River Warbler *Bradypterus grandis* also occur within the park, together with a wide cross-section of Congo Basin forest species. Despite the obvious potential for ecotourism, it appears that prior to Eddie's visit no foreigners had visited the park for over six months. Knowledgeable guides and porters are available and eager for employment at Somolomo. Local people state that foreign visitors constitute a great deterrent to poachers, in addition to helping the local economy. Locals are very welcoming to tourists. Eddie welcomes enquires from anyone planning to visit Dja. Logistics are not as published in the usual travel guides, but he can assist. Contact him at: 6 Newbold Grove, Croxteth Park, Liverpool L12 0NS, UK, or e-mail Eddieirene@aol.com

Source: Eddie Williams in litt.
May 2006

Raptors decline in West Africa

Nearly 8,500 km of roadside counts through Burkina Faso, Mali and Niger were made in 1969–73 and repeated 30–35 years later. Major declines of raptors were recorded, especially of larger species and outside protected areas, e.g. 98% of large vultures. In general, numbers in national parks and other protected areas remained healthy. J.-M. Thiollay, author of the study, suggests that general heavy pesticide use, over-hunting, and global habitat degradation caused mainly by the burgeoning human population are the causes.

Source: Ibis 148, pp 240–254



Chimpanzee *Pan troglodytes*
(David Shackelford/Rockjumper
BIRDING TOURS)

New birding site opens in The Gambia

Kunkilling Forest Park and Tankandama Community Forest Eco Trails, situated 5 km east of Jangjangbureh, is a new community-based site managed by the Gambian Forestry Department. It is an intact piece of Sudan-Guinea savanna by the River Gambia. As well as bird species such as African Finfoot *Podica senegalensis*, Bronze-winged Courser *Rhinoptilus chalcopterus*, Adamawa Turtle Dove *Streptopelia hypopyrrha*, Yellow-bellied Hyliota *Hyliota flavigaster* and Black-faced Firefinch *Vidua larvaticola*, the area hosts all five species of primate found in The Gambia, and Spotted Hyena *Crocuta crocuta*, Banded Mongoose *Mungos mungo* and Bush Pig *Potamochoerus larvatus* are seen regularly. The site is open throughout the day and dusk walks are being encouraged. Entrance tickets cost D100 per person (just over UK£2), of which 60% goes to the local community and 40% to the Forestry Department, and can be purchased at the offices of the latter in Jangjangbureh.

Source: Clive Barlow
in litt. June 2006

Blue-bellied Roller visa

The Gambia Embassy in the USA now uses the Blue-bellied Roller *Coracias cyanogaster* illustration from the front cover of the Gambian field guide as part of the visa issued to visitors to the country from the United States.

Source: Clive Barlow
in litt. June 2006

Atlantic Islands

Famous wader site in Azores threatened

The most famous wader locality in the Azores, the quarry at Cabo da Praia on Terceira, is being severely threatened by construction work. The site attracts some numbers of waders, among them many Nearctic species, as has been regularly reported in this Bulletin's Recent Reports. Over the

last few years almost half of the area has been destroyed and in November 2005 the small vegetated pools in the northern part where, among others, *Tringa* waders and Pectoral Sandpipers *Calidris melanotos*, could be found were gone. The question now is whether the construction work will carry on further south to destroy the only remaining part.

Source: [http://azores.seawatching.net/
Praia.html](http://azores.seawatching.net/Praia.html)

Madagascar, into the impacts of forest clearance found that birds showed less-marked declines (26%) than either small mammals (40%) or lizards (50%), though birds did show the greatest shift in community structure with cleared areas containing more generalist and introduced species. The hardest hit species though are those of highest conservation priority.

Source: Biol. Conserv. 127, pp 72–87

Blue Tits in Fuerteventura

A recent study, by Eduardo García-del-Rey and Will Cresswell, found the Fuerteventura race of Blue Tit *Parus caeruleus degener* to be commonest in areas of mixed palm and tamarisk (*Tamarix*), with some in urban areas or in *Euphorbia* scrub; but none in pure tamarisk woodland which had been thought to be the preferred habitat. The total population was estimated at just less than 2,000 pairs but is potentially subject to destruction of its habitat, especially in the Betancuria massif, its current stronghold.

Source: Ostrich 77, pp 105–108

Southern Africa

What triggers female Monteiro's Hornbills to leave their nest?

In a study of Monteiro's Hornbills *Tockus monteiri*, a species endemic to semi-arid habitats in Namibia and Angola, Michael Mills tested the theory that this potentially long-lived bird (Monteiro's Hornbills are estimated to live 35–40 years) should have evolved a reproductive strategy that favours its own survival over that of its offspring in situations where these conflict with one another. The hornbill female seals herself, with the help of her mate, into the nest cavity before laying eggs. While incubating,

East Africa

Fire causes increase of diversity

Some 22 months following an experimental burn in the savanna of central Kenya, bird diversity (Shannon index) was 32% higher in burned than in unburned plots, but there was no effect on total abundance or species richness. Several bird families were only found on burned plots and one species only on unburned. Lindsay O'Reilly and his colleagues suggest that the highest landscape bird diversity might be with a mosaic which is of course the likely historical situation.

Source: Afr. J. Ecol. 44, pp 165–170

Indian Ocean islands

Effects of forest clearance in Madagascar

A study by Dawn Scott and colleagues, in arid spiny forest areas of



Monteiro's Hornbill *Tockus monteiri*
(Christian Boix/Tropical Birding)

the female moults all her flight-feathers simultaneously and remains in the nest for several weeks, until well after the chicks hatch, depending on the male for food. The sooner the female leaves the nest, the sooner she can help feed the young, giving them a greater chance of survival. However, if she leaves the nest before her feathers have re-grown properly, she places herself at risk because of reduced flight abilities. The hypothesis that the timing of the female's departure from the nest should be determined primarily by her own body condition rather than by that of her offspring was shown to be correct during the study. Indeed, as the female in the nest receives less food from the male than she would if foraging for herself, she loses weight and leaves the nest when her weight has dropped to such a low level that she risks starvation. Though this can regularly lead to breeding failure, this is offset by the benefits of the female living longer and having more occasions to breed.

Source: Africa—Birds & Birding 11(2), p 19

Cape Gannet colony threatened by seal predation

South Africa's famous Cape Gannet *Sula capensis* colony at Penguin (or Bird) Island off Lambert's Bay,

Western Cape, has attracted countless birders over the past 20 years. The colony, which numbered 11,000 pairs of gannets, was easily accessible and had a special, very innovative viewing hide, making it a major tourist attraction on which local businesses were to a large degree reliant. Although the 2005 breeding season began as usual, with thousands of gannets gathering in July–September to commence nesting, their numbers soon crashed and by the second week of November the colony was completely deserted. The cause was predation by Cape Fur Seals *Arctocephalus pusillus*, perpetrated mainly at night. In all, c.200 adult gannets were killed by seals before the colony was deserted, and no young were raised. Although the percentage of Cape Fur Seals that attack seabirds is small, numbers are rising and this behaviour appears to be readily learnt. Seals only began to breed at Penguin Island in 1985, but the present population numbers 5,000–7,000 individuals. This is suspected to have caused the local extinction of the Bank Cormorant *Phalacrocorax neglectus* (listed as Vulnerable) and the decrease of African Penguin *Spheniscus demersus* to c.10 pairs. Cape Gannet is endemic to southern Africa and is classified as Vulnerable. There are

only six colonies in the world with that on Penguin Island representing 7% of the global population.

Source: Africa—Birds & Birding 11(2), pp 60–67

Breeding island for flamingos to be built at Kamfers Dam, South Africa

Kamfers Dam, near Kimberley in the Northern Cape, South Africa, is home to up to 36,000 Lesser Flamingos *Phoeniconaias minor*, c.95% of the southern African population, and several thousand Greater Flamingos *Phoenicopterus (ruber) roseus*. Although both species, which are considered Near Threatened in the subregion, have attempted to breed at the dam, they never proceeded beyond egg-laying. The reason for breeding failure has been attributed mainly to disturbance by dogs and humans. Funding for the construction of a breeding island at 200 m from the shoreline has now been secured and it is hoped that flamingos will soon start breeding at this site.

Source: Africa—Birds & Birding 11(2), p 13

Review of Katanga's birds

A detailed review of the taxonomic status of the birds (especially of 56 forms) of the Katanga region of southern Democratic Republic of Congo, by F. Cotterill, indicates that the area ranks alongside better-known areas in terms of its global conservation importance. All of the 56 forms constitute geographically isolated populations with restricted ranges, and previous workers seem not to have realised how distinct many of these forms are, though the author acknowledges that many require a thorough taxonomic reappraisal.

Source: Ostrich 77, pp 1–21

Wattled Crane populations

There are three disjunct populations of Wattled Crane *Bugeranus carunculatus*. The declining South Africa population (see also below) appears to be genetically distinct (though without any loss of genetic diversity)



Cape Gannets *Sula capensis* (Pete Leonard)



Wattled Cranes *Bugeranus carunculatus* (David Shackelford/
Rockjumper Birding Tours)

from the Zimbabwe and Botswana populations, which are similar to each other. Hence eggs should not be imported into South Africa from other areas to help the population to recover.

Source: Biol. Conserv. 127,
pp 98–106

Wattled Cranes sighted in Eastern Cape, South Africa

On 1 October 2005, two Wattled Cranes *Bugeranus carunculatus* were sighted at Barkly East, in the north-east of Eastern Cape, South Africa. For many years, the species was thought to be extinct in the province.

Source: Africa—Birds & Birding
11(1), p 68

Internet resources

Malimbus online

The full text of the journal of the West African Ornithological Society,

Malimbus, will be made available during 2006 on the website <http://malimbus.free.fr>. Visitors can download PDFs of complete issues, except those from the most recent three years. Also available are three pointers to individual pages. The species index, the tables of contents and the country references are visible on the screen simultaneously with the *Malimbus* page, so that researchers can see, download or print the pages they are interested in.

Checklist of the Birds of Swaziland

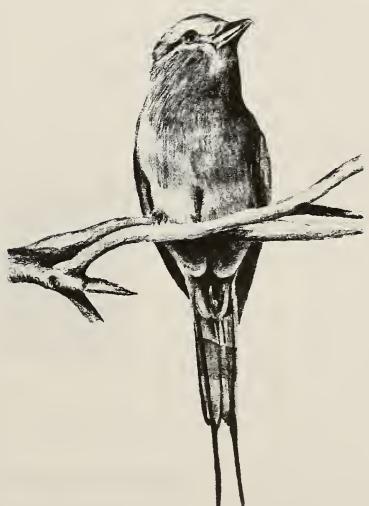
A free, printable and downloadable checklist of the Birds of Swaziland is available courtesy of the Natural History Society of Swaziland and the publishers of the forthcoming field guide *Wild Swaziland* at <http://www.naturalhistorysociety.org.sz/Birds.htm>. The checklist is available in Word, Excel and Adobe PDF formats.

Birds of Angola

The first website dedicated to the study of Angolan birds was launched in May 2006 at www.birdsangola.org. The website is maintained by a group that aims to support, promote and conduct information gathering, research and conservation of Angolan birds. The site's main focus is the publication of scientific information on Angolan birds, at this stage concentrated primarily on descriptive studies, with a strong focus on priority taxa and areas for conservation. Visit the website to view a full bibliography on Angolan birds or view recent changes to the Angolan bird list.

Newsletter Ethnoornithology

The first edition of the Ethnoornithology Research & Study Group (ERSG) Newsletter, June 2006, is available at the ERSG website: <http://uk.groups.yahoo.com/group/Ethnoornithology>. The ERSG was established early in 2006 to provide a clearinghouse and information and discussion point for people interested in the study of, research into and application of indigenous bird knowledge.



Lilac-breasted Roller (Craig Symes)

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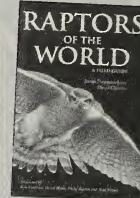
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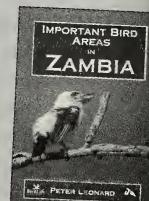
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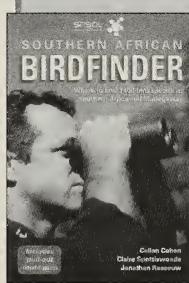


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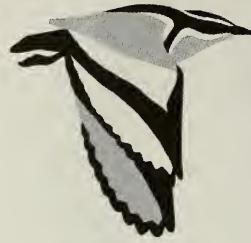
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Awards in 2005

Two Expedition Awards, each of UK£850, were made in 2005, both kindly sponsored by AviFauna.



Endemic birds in Yabello, Ethiopia

One award went to a Glasgow University expedition to study Stresemann's Bush Crows *Zavattariornis stresemanni* and White-tailed Swallows *Hirundo megaensis* in the Yabello area of southern Ethiopia. The university group worked closely with the Ethiopian Wildlife & Natural History Society. At the ABC AGM, in March 2006, Richard Mellanby spoke about the expedition, and more details can be found in the report of the meeting (p. 115).

Conservation in the Comores

The second Expedition Award went to Hugh Doulton for a collaborative project organised by the University of Oxford, the Comorian National Centre for Scientific Research (CNDRS), and the Comorian NGOs: Action Comores Anjouan (ACA) and the Association of Intervention for Development and the Environment (AIDE). The project was unfortunately marked by a tragedy. Hamidou Ali, president of AIDE, one of the key partners in Grande Comore, was killed in a car crash on 29 July.

Conservation Comores 2005 worked to bolster conservation efforts on the remote Comoro Islands in the Indian Ocean. The islands' forest, rich in endemic species, is severely threatened by a burgeoning population that lacks alternative resources. The aim was to contribute to conservation efforts and the development of conservation plans in the Union of the Comores, through biological and resource-use surveys and environmental awareness work, in order to address the problem of forest degradation and potential species extinction.

In an interim report, Hugh Doulton reported that the team undertook 237 point counts (127 on Grand Comore on 17–28 July and 1–12 September, and 110 on Anjouan on 5–27 August). Madagascar Fody *Foudia madagascariensis* and the closely related Comoro Fody *F. eminentissima* were not distinguished in point

counts as they are known to interbreed frequently. On Grand Comore, surveys were concentrated in forest habitats, though eight habitat categories were surveyed between 400 m and 2,200 m. At each location at least 15 points were carried out over several days to allow for comparison of avifaunal richness around the island. Distributions and patterns of endemic species will be determined and compared and added to the data collected by Louette *et al.* since 1985. On Anjouan, points were distributed in four habitats from sea level to 1,600 m. Surveys mainly concentrated on identifying patterns of avifaunal richness in terms of habitat and altitude. Habitat quality will be analysed using surveys in the altitudinal band of 800–1,000 m. Data on individual endemics will also be produced.

In addition, 22 surveys (14 in Anjouan and eight in Grand Comore) of the two species of Critically Endangered scops owls were performed. In Grand Comore the aim was to confirm the presence of the Grand Comore Scops Owl *Otus pauliani* at sites thought best for avifaunal richness. In Anjouan, work followed on from the basal population surveys of Anjouan Scops Owl *O. capnodes* undertaken, in 1995, by a Newcastle University expedition. That expedition surveyed mature and regenerating forest above 600 m and estimated that c.50 individuals remained. Surveys during the present expedition focused on determining the lower altitudinal range of the owls rather than population estimates. Surprisingly, owls were recorded as low as 450 m in highly degraded forest, suggesting that the species is less dependent on primary forest than previously thought and that populations may have been underestimated.

Other awards

Endemic highland birds in Ethiopia

Merid Nega Gabremichael received UK£750 for studies to establish the status and distribution of Harwood's Francolin *Francolinus harwoodi*, Yellow-throated Seedeater *Serinus flavigula* and Ankober Serin *Serinus ankoberensis* in the Ethiopian highlands. His award was kindly made possible by a donation from Julian Francis.

Beginners' bird book in Botswana

BirdLife Botswana received UK£1,000 towards producing a beginners' guide for birds in Botswana. Specifically, the money helped pay for translation costs of the English text into Setswana. This book has been published and is being made available to schools, Department of Wildlife & National Parks staff and others. Dr Hazell Thompson of BirdLife International's Kenya office wrote: 'My perception during my recent visit to Botswana [in March 2006] was that the ... book has been extremely well received in the country, especially by high-placed policy makers. We visited the Director of Wildlife and National Parks, the Deputy Permanent Secretary Ministry of Environment and the UNDP Resident Representative and all were very positive and enthusiastic about the book...'.

Translocation of Mauritius Fody

An award of UK£500 was made to the Mauritian Wildlife Foundation (through Wilfred Verner Miles) to help with the costs of a translocation programme for Mauritian Fodies *Foudia rubra*. The fodies were transferred to a predator-free island—Île aux aigrettes.

Population survey of Taita Falcon

Another award was made for a population survey of Taita Falcons *Falco fasciinucha* in South Africa. Initially this work, to be overseen by Andrew Jenkins and Anthony van Zyl of the Western Cape Raptor Research Programme, was to have used helicopters, but this plan was abandoned after concerns over disturbance. The project could not take place in 2005 but should be completed during September/October 2006.

Bearded Vultures in South Africa

Mao Angua of the Percy FitzPatrick Institute received UK£750 for a project to investigate private land management practices and the conservation status of the Bearded Vulture *Gypaetus barbatus* in southern Africa. Mao hoped to quantify the extent and nature of land-use changes within the estimated foraging range of Bearded Vultures in the Drakensberg foothills and KwaZulu Natal (KZN) midlands in the last 20 years. He also aimed to assess the extent and nature of changes in the attitudes of landowners towards vultures in this area of South Africa over

the same period. AviFauna also kindly sponsored this award. Unfortunately, Mao did not carry out this work in 2005 but it is hoped the award can be used during 2006.

Congo Bay Owl

A small award of UK£250 was made to Robert Kizungu for a study of the little-known Congo Bay Owl *Phodilus prigoginei*. Unfortunately war and unrest in his country are slowing down the field work.

PAOC 2008

UK£1,000 was also set aside during 2005 to help fund the attendance of African nationals at the next Pan-African Ornithological Congress, in 2008.

Awards in 2006

Numerous applications were received during early 2006. Successful applications so far have included.

Dunga Swamp

Akwany Leonard Omondi received UK£800 on behalf Lake Victoria Sunset Birders (LVSB) an affiliate site conservation group of Nature Kenya (BirdLife International partner in Kenya), responsible for the conservation of Dunga Swamp, one of the 60 Important Bird Areas (IBAs) in Kenya. LVSB was founded in 1997 and works towards the conservation of Dunga Swamp through activities such as school and community outreaches, forestation and reforestation projects, research and monitoring of Dunga Swamp, ecotourism/birdwatching and counts, and waste management. The award will specifically help train volunteers of the site conservation group in order that they will be better able to undertake effective conservation research, monitoring and action.

Sakalava Rail in Madagascar

Marc Rabenandrasana received UK£1,000 for a population survey of the Endangered Sakalava Rail *Amaurornis olivieri* in the newly identified Besalamy wetlands complex Important Bird Area in Madagascar. The survey has the support of the BirdLife partner in Madagascar. As well as determining the status of the rail, Marc will also develop a public awareness campaign for wetland conservation.



Chaplin's Barbet *Lybius chaplini* (Claire Spottiswoode)

Chaplin's Barbet in Zambia

The Zambian Ornithological Society (ZOS) received UK£590 for a study to determine the current status of Chaplin's Barbet *Lybius chaplini*, particularly in areas which have undergone the most radical changes due to human activity within the past 20 years. The work will be undertaken by Lizanne Roxburgh, a ZOS committee member and post-doctoral researcher at the University of Cape Town, Crispin Imakando Sinyama (IBA coordinator and ZOS committee secretary) and Daniel Mwizabi (Zambian Wildlife Authority representative on ZOS committee, and National Species Coordinator).

Chaplin's Barbet is confined to southern and central Zambia, and is Zambia's only endemic bird. The 2004 IUCN Red List Category for Chaplin's Barbet is Near Threatened, but field surveys to establish the true status, distribution and ecological requirements are considered a priority. No systematic study of the species has ever been made. However, anecdotal evidence suggests that the range has shrunk significantly within the past 20 years. They are highly dependent on sycamore fig trees *Ficus sycomorus*, the density of which may be a factor limiting the population size, both in terms of nest availability and year-round supply of fruits. Suitable habitat is patchily distributed, mainly in unprotected areas under threat particularly from urban sprawl, land clearance for agriculture and cutting of trees for fuel. The long-term survival of the barbet is far from certain and a survey is urgently needed.

Spotted Ground Thrush in Sokoke Forest

Rebecca Vande Griend will receive UK£800 towards a study into the effect of elephants on

the habitat of Spotted Ground Thrush *Zoothera guttata* in Arabuko-Sokoke Forest in Kenya. Her project is to form part of a US\$20,000 grant being awarded to Nature Kenya and BirdLife Africa by CEPF. In the context of the project proposed for funding by CEPF (to monitor Spotted Ground Thrush in Kenya and Tanzania), Rebecca and A Rocha (Colin Jackson) have an important role to play in collecting detailed baseline and follow-up ecological data in Arabuko-Sokoke Forest. This may include (but will not be restricted to) collecting elephant/habitat data, but the elephant/thrush relationship may also be explored during the monitoring project. For effective coverage of Arabuko-Sokoke, further support is however needed, since the funding from CEPF is to be spread throughout the entire East African range of Spotted Ground Thrush, and will be utilised by three other organisations.

News of 2004 projects

ABC was delighted to hear recently of the down-listing of Seychelles Fody *Foudia sechellarum* to Near Threatened, particularly as our partial-funding of a translocation project in the Seychelles in 2004 contributed to this. One of our sponsors, AviFauna, funded the ABC award to Nature Seychelles. The project involved moving 47 Seychelles Fodies (and 58 Seychelles Warblers *Acrocephalus sechellensis*) to Denis Island. The fody is now breeding on Denis and has a self-sustaining population.

Dawit Berhane received funding from ABC to help with surveys of sites, notably Important Bird Areas, in Eritrea. He has sent ABC comprehensive lists of bird species seen at each site that he visited.

Conservation Fund

The Club is delighted to announce that it has donated over UK£45,000 to bird conservation projects in Africa since the inception of its award scheme ten years ago. Awards have been made to a total of 68 projects in 26 countries. This magnificent sum has been possible due to the many generous donations from our members and sponsors. Further details about the scheme and the projects which have been supported can be found at: www.africanbirdclub.org/club/ConsFund

The taxonomic and conservation status of Chapin's Crombec

Sylvietta (leucophrys) chapini

L. D. C. Fishpool^a and N. J. Collar^b

Le statut taxonomique et de conservation du Crombec de Chapin *Sylvietta (leucophrys) chapini*. Le Crombec de Chapin *Sylvietta leucophrys chapini* est connu de seulement trois spécimens collectés dans les années 1940 sur le Plateau de Lendu, dans le nord-est de la République Démocratique du Congo. Bien qu'originalement décrit comme espèce, il a généralement été traité depuis comme une sous-espèce du Crombec à sourcils blancs *S. leucophrys*. Dans un certain nombre d'ouvrages récents, il a toutefois de nouveau été considéré comme espèce, nous incitant à réexaminer son statut. La tête de *chapini* est uniformément marron vif, sans le sourcil blanc bien marqué des deux autres sous-espèces de *S. leucophrys*. A l'exception du brun de la tête, qui est un peu plus vif chez *chapini*, le taxon ressemble fortement à *leucophrys* et, en l'absence de preuves vocales, nous estimons qu'il vaut mieux le maintenir comme une sous-espèce distincte. Obtenir des preuves vocales sera problématique, non seulement parce que les troubles civils qui se poursuivent dans la région empêchent tout travail sur le terrain, mais également parce que des doutes existent concernant la survie de *chapini*, la crainte étant que le défrichement de la forêt sur le Plateau de Lendu puisse avoir causé son extinction. Des informations datant du milieu des années 1990 indiquent que de la forêt subsistait en ce temps-là, mais des travaux sur le terrain devraient être menés d'urgence, dès que les circonstances le permettent, car le Crombec de Chapin mérite fortement d'être protégé, irrespectivement de son rang taxonomique.

Summary. Chapin's Crombec *Sylvietta leucophrys chapini* is only known from three specimens collected in the 1940s on the Lendu Plateau, north-eastern Democratic Republic of Congo. Although originally described as a species, it has since commonly been treated as a subspecies of White-browed Crombec *S. leucophrys*. In a number of recent works, however, it has again been recognised specifically, thus prompting this review of its status. The head of *chapini* is uniformly bright chestnut and lacks the conspicuous white eyebrow of the other two races of *S. leucophrys*. Apart from the brown of the head being somewhat brighter in *chapini*, it otherwise closely resembles *leucophrys* and, in the absence of vocal evidence, we believe the taxon is best retained as a distinct subspecies. Obtaining such evidence will be problematic: not only does continuing civil unrest in the region prevent any field work, but there is also doubt as to whether *chapini* still exists, as it is feared forest clearance on Lendu may have led to its extinction. Information from the mid 1990s indicated that some forest did then remain but further work, when circumstances permit, is urgently needed as, irrespective of its taxonomic rank, Chapin's Crombec strongly merits conservation.

The White-browed Crombec *Sylvietta leucophrys* of East Africa occurs in montane forests, mainly at 1,550–2,600 m, rarely slightly lower, and up to 3,000 m in bamboo in some areas (Urban *et al.* 1997). *S. leucophrys* is generally considered to comprise three subspecies (Urban *et al.* 1997, Dickinson 2003). The nominate occurs in Kenya, where it is widespread across much of the highlands, in Uganda, on Mt Elgon in the east and in Kibale Forest in the west, as well as on the slopes of Rwenzori, in both Uganda and the Democratic Republic of Congo. To the south, it is

replaced by *chloronota*, (including *arileuca* Parkes 1987) which occurs from Kigezi, south-western Uganda, and Kivu, eastern DR Congo, south to the highlands north-west and east of Lake Tanganyika (Urban *et al.* 1997, Carswell *et al.* 2005).

The third form, *chapini*, is known only from the Lendu Plateau, north-eastern DR Congo, and differs markedly from the other races in having a complete chestnut cap which extends over the cheeks; it thus lacks their conspicuous eponymous white eyebrows. It was originally described as a

species, *Sylvietta chapini*, by Schouteden (1947) on the basis of three individuals collected on Lendu in the early 1940s by J.M. Vrijdagh and since housed at the Royal Museum for Central Africa (RMCA), Tervuren, Belgium. It was not long, however, before the specific status of *chapini* was questioned, the first to do so apparently being Chapin himself (1953), who wrote 'the grayish underparts, with yellow tibial feathering and under tail-coverts, suggest close relationship to *S. leucophrys*. Despite the difference in head colour, *chapini* may yet prove to be only a race'. White (1962) decided that the subspecific status of *chapini* was indeed proven and formally reduced it, without comment, to a race of *leucophrys*. This treatment was followed by most subsequent authorities, including Hall & Moreau (1970), Wolters (1975–82) (who admitted some uncertainty), Lippens & Wille (1976), Louette (1989), Dowsett & Forbes-Watson (1993), Urban *et al.* (1997), Clements (2000) and Dickinson (2003). The main exceptions, in addition to those mentioned above, are Schouteden (1957, 1963), Mackworth-Praed & Grant (1973), Sibley & Monroe (1990) and Sinclair & Ryan (2003); the latter three all afford it the English vernacular name of Chapin's Crombec.

BirdLife International has responsibility for maintaining, on behalf of IUCN, the Red List of globally threatened bird species. Since its publication, the Red Data Book for Africa (Collar & Stuart 1985) has provided the justificatory backbone for the Afrotropical component of this list. A few years later, BirdLife International adopted Sibley & Monroe (1990, 1993) as its standard global taxonomic source (although this is no longer the case), and this formed the basis for BirdLife's Endemic Bird Area analysis (Stattersfield *et al.* 1998). Since its adoption, however, there were numerous cases where Sibley & Monroe (1990, 1993) taxonomy was not followed. The majority of such exceptions stemmed from studies associated with threat status assessments, including those in Collar & Stuart (1985), which in some cases indicated different taxonomic treatments. Although strenuous attempts were made to reconcile the taxonomies followed by the Red List and Endemic Bird Area programmes, there are a few discrepancies. *Sylvietta (leucophrys) chapini* is one such; Stattersfield *et al.* (1998), and Fishpool & Evans (2001), followed Sibley &

Monroe (1990) in recognising *S. chapini* specifically, whilst the Red List programme, implicitly treating it as a subspecies of *S. leucophrys*, not a species of global conservation concern, did not have occasion to consider its threat status.

We therefore seek to address this discrepancy through reassessment of the taxonomic and conservation status of *Sylvietta (leucophrys) chapini* and, in so doing, we hope to raise its profile. We are acutely conscious that there appear to have been no further records of *chapini* since Vrydagh's 1942 specimens, whilst loss of habitat within its known range has been such that, even over 15 years ago, Louette (1989)—based on information provided by Upoki A'genonga (M. Louette *in litt.* 2006)—wrote that 'the forest on Lendu plateau is gone', and speculated that *chapini* might no longer exist.

Morphology

During a visit to RMCA in December 2003, LDCF was able to examine the three *chapini* syntypes and reconfirmed the features identified in the original diagnosis. Briefly, these comprise: top and sides of head and nape rich chestnut-brown, mantle and back brownish with grey bases to feathers, rest of upperparts olive-green with grey feather bases, flight-feathers brown conspicuously fringed bright yellowish green; chin, throat and midline of abdomen white, rest of underparts brownish grey, underwing-coverts, undertail-coverts and thighs lemon-yellow, undertail brown. According to the label data and type description, the bill is greyish pink or flesh-coloured, darker or brownish below, the irides pale brown or chestnut and legs greyish pink to flesh, colours evident from specimen labels to be equally applicable to nominate *leucophrys*.

One of the three syntypes of *chapini*, a male, is shown in Figs. 1–3, photographed alongside a male of the nominate race from Ruwenzori, the population nearest to Lendu, at its closest c.1° to the south-west. In addition to the difference in head pattern, the nominate appears in the photograph to be much larger. This is not however borne out by measurement. Thus, Schouteden's type description gives the following for the three *chapini*: wing 56–58 mm, tail 21–23 mm, bill 7–9 mm, tarsus 18–19 mm. Re-measurement largely confirmed these values (one specimen has a damaged bill and a second has broken tarsi), and



Figures 1–3. Dorsal, lateral and ventral views of Chapin's Crombec *Sylvietta leucophrys chapini* (RMCA specimen no. 42513, male syntype, Djugu, Lendu Plateau, north-eastern DR Congo) and White-browed Crombec *S. l. leucophrys* (RMCA specimen no. 29830, male, Ruwenzori, north-eastern DR Congo). *S. l. chapini* is on the left in the dorsal and lateral views and on the right in the ventral view (L. D. C. Fishpool). © Royal Museum for Central Africa, Tervuren, Belgium.

Vues dorsales, latérales et ventrales du Crombec de Chapin *Sylvietta leucophrys chapini* (Musée Royal de l'Afrique Centrale, spécimen no. 42513, mâle syntype, Djugu, Plateau de Lendu, nord-est de la RD Congo) et Crombec à sourcils blancs *S. l. leucophrys* (MRAC, spécimen no. 29830, mâle, Ruwenzori, nord-est de la RD Congo). *S. l. chapini* est à gauche en vues latérale et dorsale et à droite en vue ventrale (L. D. C. Fishpool). © Musée Royal de l'Afrique Centrale, Tervuren, Belgique.

showed that the bill-length in the type description is of exposed culmen. Equivalent data for 13 nominate specimens (five male, six female and two unknown) from Ruwenzori in the Natural History Museum (NHM), Tring, UK, (measured by NJC) were: wing 53–61 mm, tail 23–26 mm, bill from skull 12.3–13 mm, bill from nares 6.7–7.5 mm and tarsus 21–23 mm. These suggest that *chapini* may have rather shorter legs, but the difference is not striking.

An additional character by which *chapini* is said, by Urban *et al.* (1997), to differ from other races is in having a yellow-buff wash to the grey of the belly—a difference which in Sinclair & Ryan (2003) becomes ‘yellowish (not dark grey) underparts’—but this is not supported either by Schouteden’s type description, subsequently summarised by him as underparts brownish grey, chin, throat and centre of belly white; undertail-coverts lemon-yellow (Schouteden 1957; our translation), or by the quote from Chapin (1953) given above,

or by the specimens (Fig. 3). This character may be attributable to an anonymous, undated note accompanying two slides of a male from Djugu held in the NHM. Part of this note reads ‘No.42513 Tervuren. ? Djugu Forest 26/11/42 coll. Vrydagh. Above a close match with [NHM specimen] *S. leucophrys* 1910.12.26.273 from Mt Elgon on mantle & below, except for a yellow-buff wash on the tummy. Head richer brown with no white eye-stripe’. The two slides show lateral views of the specimen in which little of the belly can be seen. Fortunately, however, a ventral view of the same *chapini* specimen appears in Fig. 3 and, as is apparent, any yellow wash on the belly is exceedingly faint; it seems improbable that post-mortem effects could account for a loss of colour, since Schouteden’s type description would surely have mentioned the character had it been apparent.

The only major morphological difference between *chapini* and nominate *leucophrys*—and indeed *chloronota*, which differs from the latter

only in its rather greener upperparts and in having slightly more brown on the ear-coverts and cheeks—therefore resides in the uniform chestnut head of the former: the lack of the broad white supercilium makes it appear strikingly different. The head colour of *chapini* is also richer and brighter than in most *leucophrys*, including that shown in Fig. 1, and whilst there is some variation between nominate *leucophrys* specimens in intensity of head colour, in none of those examined is it as deep as *chapini*.

Locality data and field observations

The Lendu Plateau is a large massif situated at the northern end of the Albertine Rift, west of Lake Albert, in north-eastern DR Congo, bordered to the north by the Ugandan frontier. The altitude of the plateau varies between 1,700 and 2,000 m, rising along its eastern edge to a number of cone-shaped mountains, of which the highest is Mt Aboro at 2,455 m. The plateau is predominantly grassland with isolated trees; montane forest formerly occurred in patches above 1,500 m, but has now largely been destroyed. The forest near Djugu, in the valley of the Nizi River, is thought to be the most important remnant (Vrydagh 1949, Demey & Louette 2001). Indeed, this forest was the source of one of Vrydagh's three specimens: an adult male collected on 26 November 1942 (RMCA 42513), whilst the other two, an adult male and a 'juvenile' (but see below) female, came from Nioka on 24 November 1942 (RMCA 42512) and 24 July 1941 (RMCA 42511) respectively. These collection dates and genders differ slightly from those given by Schouteden (1947) and Vrydagh (1949), which are themselves inconsistent; the data given here are taken from the specimen labels and also those that appear in Louette *et al.* (2002). Chapin (1953) gives the altitude for Djugu (01°55'N 30°30'E) as 5,400 ft (c.1,800 m) and Nioka (02°09'N 30°40'E) as 5,700 ft (c.1,900 m).

All that is known of *chapini* in life comes from the few observations by Vrydagh (1949), who reported that it behaved as others of the genus. He thought it reasonably common on Lendu, since he saw several others in addition to those he collected. Whilst Vrydagh considered it unquestionably a forest bird, he found that it was not exclusively so, since the first individual to be collected was in

the branches of a *Eucalyptus* outside the hotel in Nioka. Later in his short account, however, Vrydagh says that this and the second Nioka specimen were shot in gallery forest. The Djugu individual was taken in forest, where he saw two further individuals in dense undergrowth, in flight and foraging for insects on branches, around which they worked rapidly.

Discussion

Sibley & Monroe (1990), whilst acknowledging that *chapini* was 'usually considered a race of *S. leucophrys*', treated it as a species because they felt that the 'differences in face pattern suggest allospecies status.' However, having had the benefit of being able to examine the skins, and whilst recognising that *chapini* differs strongly in head pattern and, to a lesser extent, colour—but in little else—we do not feel that such differences are sufficient to merit this treatment and prefer, on present evidence, to retain *chapini* provisionally as a distinctive subspecies of *leucophrys*.

Part of our reluctance in this matter relates to the fact that the head pattern of *chapini* is not dissimilar to the juvenile plumage of the other races. Louette (1989), who asserted that 'without doubt the *chapini* specimens are adults' (notwithstanding that one is indeed labelled juvenile [Louette *et al.* 2002]), pointed out that 'immature' of *chloronota* 'lack the white superciliary stripe of the adult or only show a faint indication of it'. This was amplified by Zimmerman *et al.* (1996), who wrote that 'juvenile' nominate *leucophrys* has, on leaving the nest, a chocolate-brown crown with no trace of superciliary stripes as well as a pale yellow lower breast and belly and a brown chin and upper breast, whereas the 'immature' has pale greenish-yellow superciliary stripes, whilst the brown of the underparts extends in a point onto the throat. Allowing for the difference in terminology here, it seems clear that what Zimmerman *et al.* (1996) called juvenile *leucophrys* appears to resemble adult *chapini* in head pattern, even if the colour is rather darker.

The case for or against species status for *chapini* could be resolved most usefully by vocal evidence (we are less comfortable in saying the same for DNA evidence, since views vary considerably as to the appropriate levels of molecular differentiation for allocating species rank). If it proved to

call and/or sing in ways significantly different from the other two races—which are reported to differ somewhat vocally (Stevenson & Fanshawe 2002)—then we would recommend opting for species status for the taxon. The combination of the head coloration and pattern with such vocal distinctiveness would strongly vouch for such a treatment.

Obtaining such vocal evidence will, however, be problematic, partly because of the political instability of the region and partly for a more immediate consideration: does Chapin's Crombec still survive? All reports indicate that there has been large-scale clearance of forest on Lendu, to the extent that, as Louette's (1989) comment quoted above indicates, the three RMCA specimens may be all that remain of this bird. The observations of Pedersen (1997), however, suggest that such an assessment may be unduly pessimistic. He was able to overfly the Lendu Plateau in 1993 and reported seeing two areas of forest, one at Djugu, and a second east of Nioka close to the edge of the plateau—significantly at, or close to, the original collecting localities. He estimated each then to cover an area approximately equivalent to ten football pitches. Together with Marc Languy and Laurent Esselen, Tommy Pedersen subsequently visited Lendu for two days in February 1994 and spent time in the remnant forest at Djugu. Although they were unable to find *chapini*, they did rediscover the globally threatened Prigogine's Greenbul *Chlorocichla prigoginei*, known only from Lendu and also from the Beni–Butembo region, to the south-west. Pedersen (1997) also reported several other montane forest species still persisting at Djugu, but saw evidence everywhere of logging by the local human population. Despite both this and their lack of success with *chapini*, the fact that suitable habitat remained on Lendu up until at least 12 years ago must give some hope that reports of the demise of *chapini* may be premature. On the other hand, the comment of Zimmerman *et al.* (1996) that *leucophrys* formerly occurred in the forests and suburbs of Nairobi, Kenya, but no longer does so, suggests that the species is perhaps rather intolerant of disturbance and fragmentation.

Chapin's Crombec is the only avian taxon entirely confined to the Lendu Plateau (Prigogine 1985) and no strict endemics in other vertebrate groups, at least at species level, have been reported

from the massif (Plumptre *et al.* 2003). The range of *chapini*, limited to a restricted outlier at the northern end of the Albertine Rift (possibly little more than 100 km north-east of the nearest populations of the nominate subspecies in Ruwenzori), is therefore unusual and, at least among birds, appears unique. Although nominate *leucophrys* is replaced south of Ruwenzori by (the not very different) *chloronota*, which occupies the rest of the Albertine Rift, it reappears on Mt Elgon in extreme eastern Uganda and thence extends throughout much of the central Kenyan highlands.

Whether *chapini* is, or was, always so confined is perhaps open to question. Prigogine (1985) pointed out that some montane forest occurred, or at least used to do so, to the west of the Lendu Plateau, on Mt Wago (01°44'N 30°49'E), around Mongbwali (01°56'N 30°02'E) and at Bondo Mabe (02°36'N 29°34'E); these forests, if still extant, remain as unexplored ornithologically now as they were when Prigogine called for 'urgent' surveys of them over 20 years ago. Whilst it is unknown what effect the protracted political unrest which continues to afflict Ituri and the Lendu Plateau area has had on the remaining forests of the region, it is certain that the lack of security rules out any imminent prospect of surveys or, indeed, of conservation work in the region. As and when circumstances do permit, we sincerely hope that Chapin's Crombec will be found to have survived for, irrespective of taxonomic rank, it unarguably merits conservation.

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Taxonomy of the Crimson-winged Finch

Rhodopechys sanguineus: a test case for defining species limits between disjunct taxa?

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Taxonomie du Roselin à ailes rousses *Rhodopechys sanguineus*: un cas d'étude pour définir les limites des espèces entre des taxons géographiquement éloignés? Nous avons examiné la taxonomie du Roselin à ailes rousses *Rhodopechys sanguineus* en utilisant des données de la morphologie, des mensurations et des vocalisations. Cette espèce a traditionnellement été traitée comme polytypique, comprenant deux taxons, la sous-espèce nominale *sanguineus* d'Asie occidentale et centrale, et *alienus* d'Afrique du nord-ouest. Peu d'auteurs ont relevé les différences morphologiques manifestes entre les deux, quoique Fry & Keith (2004) aient récemment suggéré qu'ils puissent constituer des espèces phylogénétiques. Nos analyses indiquent que jusqu'à neuf caractéristiques de plumage séparent les mâles des deux taxons (dont quatre sont diagnostiques et plusieurs autres presque), et trois caractéristiques peuvent être utilisées de façon fiable pour distinguer les femelles (dont toutes sont entièrement ou quasiment diagnostiques). Nous décrivons également des variations du plumage saisonnières et liées à l'âge, chez les deux taxons. De plus, des données morphométriques soumises à l'Analyse en Composantes Principales indiquent que les deux taxons, et surtout les femelles, sont plutôt mieux séparés au niveau de la taille et des proportions qu'on ne le pensait jusqu'à présent. Il a été impossible de faire des comparaisons adéquates entre les vocalisations des deux taxons, peut-être parce que les enregistrements disponibles proviennent de différentes saisons, et sans doute à cause des variations individuelles considérables des cris. Bien que nos résultats exigent un examen moléculaire, utilisant particulièrement plusieurs autres membres des roselins des zones désertiques comme 'outgroup', ils suggèrent assez bien qu'il s'agit de deux allo-espèces, peut-être même deux espèces à part entière, si on se base sur la définition du rang d'espèce de Helbig *et al.* (2002). On peut trouver également une répartition biogéographique identique ou similaire (à celle des deux taxons de *Rhodopechys*) chez plusieurs autres formes qu'il semble préférable de considérer comme spécifiquement distinctes (telles que les Fauvettes naines africaine *Sylvia deserti* et asiatique *S. nana*). Nos résultats renforcent en outre l'importance—apparemment de plus en plus négligée—des spécimens conservés dans les musées pour la taxonomie aviaire, à une époque où les études moléculaires semblent avoir acquis une importance suprême (Collar 2004).

Summary. Using morphology, morphometrics and vocalisations we investigated the taxonomy of the Crimson-winged Finch *Rhodopechys sanguineus*, which has traditionally been viewed as a polytypic species, comprising two taxa, nominate *sanguineus* in western and Central Asia, and *alienus* in north-west Africa. Few previous commentators have remarked on the obvious morphological differences between the two, although Fry & Keith (2004) recently suggested that they might be phylogenetic species. Our analyses suggest that as many as nine plumage features separate males of the two taxa (four being diagnostic and several others nearly so), and three features can be reliably used to distinguish females (of which all are diagnostic or virtually so). We also describe seasonal and age-related plumage variation in both taxa. Furthermore, morphometric data subjected to a Principal Components Analysis suggest that the two are rather better separated in size and shape than previously thought, especially in females. It proved impossible to draw adequate comparisons between the vocalisations of the two taxa, perhaps due to the available recordings being from different seasons, and certainly because of considerable individual variation in calls. Our results demand molecular testing, using especially various other members of the 'desert finches' as an outgroup, but provide strong indication that two allospecies, perhaps even full species, are involved, based on the guidelines for assigning species rank of Helbig *et al.* (2002). The same or

a similar biogeographical pattern as found in the two *Rhodopechys* taxa is also evident in a number of other forms which seem best considered as being specifically distinct (e.g. African Desert Warbler *Sylvia deserti* and Asian Desert Warbler *S. nana*). Our results further reinforce the seemingly increasingly neglected importance of the museum skin in avian taxonomy, in an epoch where molecular studies appear to have acquired paramount importance (Collar 2004).

Crimson-winged Finch *Rhodopechys sanguineus* (Gould, 1838) was described from the environs of Erzurum, in north-eastern Turkey. The species is considered polytypic, with the nominate form breeding in montane areas from west-central Turkey and, very patchily, in the Levant, somewhat more continuously east to Central Asia and extreme north-west China (in Xinjiang), whilst the taxon *R. s. alienus* Whitaker, 1897, inhabits similar high-altitude areas in north-west Africa, principally in the Moroccan High Atlas, but also extremely locally in the Aurès massif of north-east Algeria (Cramp & Perrins 1994). As recently noted by Kirwan & Gregory (2005), the taxonomy of the species has rarely been discussed in the literature, with the only detailed data concerning geographical variation being those presented by Vaurie (1949) and C. S. Roselaar *in Cramp & Perrins* (1994). Even moderately detailed specialist works dealing with the carduelines have provided only relatively limited and incomplete discussions of variation within the species (e.g. Clement *et al.* 1993). Indeed, in recent years arguably more attention has focused on generic limits and phylogenetic relationships amongst the so-called 'desert finches,' i.e. Crimson-winged Finch, Desert Finch *Rhodospiza obsoleta*, Trumpeter Finch *Bucanetes githagineus* and Mongolian Finch *B. mongolicus* (Groth 1998, Kirwan & Gregory 2005), although it had been suggested that, alone of these, *R. sanguineus* is more closely related to Red-browed Finch *Callacanthis burtoni* from the Himalayas (see Desfayes 1969). Some further evidence of the latter relationship was acquired during the course of the present study, but this is one of the many problems confronting workers with Asiatic finches (see, e.g., Voous 1977) that demands further testing using molecular methods. C. S. Roselaar (*in litt.* 2006) has pointed out the morphological similarities between Crimson-winged Finch and at least one taxon of Asian Rosy Finch *Leucosticte arctoa brunneonucha*. They share a black cap, pale nape, pink rump, pink wing-fringing, dark throat

and flanks (though brown in *sanguineus* and sooty black in *brunneonucha*), and pale spots on chest (the latter especially in *alienus*). Also, they share possession of a bifurcated gular pouch, though the occurrence of this in fringillids other than *Pinicola* and *Pyrrhula* is poorly documented (see Niethammer 1966). It might also be remarked that some of the North American forms of rosy finches share almost as many morphological characters with Crimson-winged Finch. The important work of Groth (1998 and in progress) thus far suggests, amongst many other results, that Desert Finch occupies a clade containing the many canaries, some *Carduelis* and Golden-winged Grosbeak *Rhynchostruthus socotranus*; *Callacanthis* clusters with the mountain finches *Leucosticte*, *Carpodacus nipalensis* and *Pyrrhoplectes epaulettus*; and that Crimson-winged Finch and Mongolian Finch form a separate clade.

Roselaar (*op. cit.*) considered geographical variation in Crimson-winged Finch to be 'fairly strong,' albeit involving colour alone, and, whilst this study was in progress, Fry & Keith (2004) noted that *Rhodopechys sanguineus alienus* might represent a phylogenetic species, although strangely the illustrations in the same work appear to show characteristics of nominate *sanguineus*! The purpose of the present contribution is to draw attention to the larger differences that exist between *R. s. sanguineus* and *R. s. alienus* than have heretofore been suspected. (Throughout we follow David & Gosselin 2002 for spellings of the various taxa in the 'desert finches'.)

Methods

GMK acquired mensural data from specimens of both relevant taxa (see Table 1), and all others within the desert finches grouping, held at the Natural History Museum (NHM, Tring), as follows: *Callacanthis burtoni* (Punjab and north-west India: $n=17$, including nine males); *Rhodopechys sanguineus* (Armenia, Syria, Iran, Turkey, Lebanon, Kazakhstan and Samarkand: $n=30$, including 22 males); *R. s. alienus* (Moroccan Atlas:

Table 1. Means \pm SD and sample sizes for wing, tail and bill measurements of the 'desert finches,' based on specimens held in The Natural History Museum (Tring). Any specimen for which one dataset or more could not be measured was excluded from the analysis and table.

Tableau 1. Moyenne \pm SD et nombre d'échantillons pour les mensurations de l'aile, la queue et le bec des roselins des zones désertiques, basés sur des spécimens du Natural History Museum (Tring). Tout spécimen pour lequel un ou plusieurs ensembles de données ne pouvaient pas être mesurés a été exclu de l'analyse et du tableau.

BGG = *Bucanetes githagineus githagineus*, BGA = *B. g. amantum*, BGC = *B. g. crassirostris*, BGZ = *B. g. zedlitzii*, BM = *B. mongolicus*, CB = *Callacanthis burtoni*, RO = *Rhodospiza obsoleta*, RS = *Rhodopechys sanguineus sanguineus*, RSA = *R. s. alienus*.

	Females				Males			
	Wing (mm)	Tail (mm)	Bill (mm)	N	Wing (mm)	Tail (mm)	Bill (mm)	N
BGG	79.33 \pm 1.15	50.33 \pm 0.58	10.23 \pm 0.81	3	83.33 \pm 2.67	51.58 \pm 2.39	10.31 \pm 0.43	12
BGA	80.14 \pm 2.34	51.14 \pm 2.04	10.87 \pm 0.31	7	82.43 \pm 1.51	53.14 \pm 2.27	10.79 \pm 0.52	7
BGC	83.6 \pm 2.88	54.4 \pm 2.63	10.41 \pm 0.47	10	87.18 \pm 2.32	57.27 \pm 4.13	10.80 \pm 0.28	11
BGZ	83.67 \pm 1.53	54.00 \pm 1.00	10.50 \pm 0.46	3	85.75 \pm 1.59	54.65 \pm 3.23	10.47 \pm 0.31	20
BM	86.94 \pm 1.69	55.75 \pm 3.71	10.17 \pm 0.59	16	88.77 \pm 1.88	56.65 \pm 3.14	10.07 \pm 0.52	26
CB	94.44 \pm 1.24	64.50 \pm 3.89	15.25 \pm 0.84	8	98.94 \pm 1.84	67.11 \pm 3.18	15.38 \pm 0.46	9
RO	84.13 \pm 1.64	64.25 \pm 3.81	11.66 \pm 0.46	8	86.36 \pm 1.91	64.21 \pm 3.62	11.79 \pm 0.58	14
RS	99.38 \pm 1.85	56.63 \pm 2.56	13.64 \pm 0.92	8	104.05 \pm 2.59	60.26 \pm 3.26	13.76 \pm 0.65	19
RSA	102 \pm 1.87	61.40 \pm 1.14	13.60 \pm 0.43	5	105.57 \pm 2.76	64.00 \pm 1.15	13.30 \pm 0.4	7

$n=13$, including seven males); *Bucanetes mongolicus* (China, Central Asia and Afghanistan: $n=44$, including 27 males); *B. g. githagineus* (all Egypt: $n=15$, including 12 males); *B. g. zedlitzii* (Morocco, Algeria and Tunisia: $n=24$, including 20 males); *B. g. amantum* (Canaries: $n=16$, including eight males); *B. g. crassirostris* (Punjab and Sind: $n=21$, including 11 males); and *Rhodospiza obsoleta* (Central Asia: $n=22$, including 14 males). Specimens were generally sexed according to label data, but these were checked closely against relevant literature (Svensson 1992, Cramp & Perrins 1994) and work in progress (Shirihai & Svensson in prep.) in the case of suspect identifications. The following data were obtained from each specimen: wing (flattened), tail-length and culmen-length (to base of feathers), using a standard metal wing-rule with a perpendicular stop at zero (accurate to 0.5 mm), and dial callipers (accurate to 0.1 mm). Specimens for which an incomplete series of mensural data was available were excluded from the statistical analysis.

Notes on plumage variation in both sexes of the two forms of Crimson-winged Finch were taken and, following comparison with those features listed as separating nominate *sanguineus* and *alienus* by Roselaar (*op. cit.*), were ranked according to their usefulness in distinguishing the two. None of the features discussed by Roselaar was found to be invalid, but there was a clear hierarchy in their relative usefulness. Thus, they were arbitrarily graded as being either average or good, with

the latter category being further subdivided into good- and good+ (these subdivisions can be considered as being 'virtually diagnostic' and 'diagnostic'). A broad range of material, pertaining to both forms, was photographed, using a Nikon Coolpix 885 digital camera, in indirect natural light (see Figs. 3–10).

Results

Mensural data.—A Principal Components Analysis (PCA) was performed on the net mensural data and the results mapped on both two-dimensional (Fig. 1) and three-dimensional plots (Fig. 2). The two-dimensional plot confirmed that (as is well known for these taxa) males are generally larger than females, and further revealed that *Rhodospiza obsoleta*, *Callacanthis burtoni*, *Rhodopechys sanguineus* and *R. s. alienus* are all rather well-differentiated taxa, with the two-dimensional plot also revealing the close relationship that has been suggested between *Callacanthis* and *Rhodopechys*. Plotted three-dimensionally, the degree of separation between *R. s. sanguineus* and *R. s. alienus* is particularly clear, and is rather larger than that between most other subspecies studied within this group of finches. As is evident from Table 1, both sexes of *alienus* tend to be longer winged and longer tailed than the same sexes of *sanguineus*, with particularly little overlap in females (perhaps influenced by the smaller sample sizes). Culmen-length appears very similar in the two taxa.

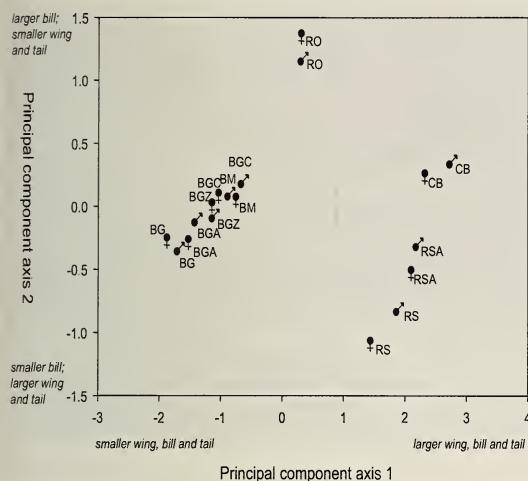


Figure 1. Results of a Principal Components Analysis for wing-, tail- and bill- (culmen-) lengths of all taxa of 'desert finches' plotted two-dimensionally.

Résultats d'une Analyse en Composantes Principales pour la longueur de l'aile, la queue et le bec (culmen) de l'ensemble des taxons des roselins des zones désertiques indiqués de façon bi-dimensionnelle.

BGG = *Bucanetes githagineus githagineus* (12 ♂♂, 3 ♀♀), BGA = *B. g. amantum* (7 ♂♂, 7 ♀♀), BGC = *B. g. crassirostris* (11 ♂♂, 10 ♀♀), BGZ = *B. g. zedlitzii* (20 ♂♂, 3 ♀♀), BM = *B. mongolicus* (26 ♂♂, 16 ♀♀), CB = *Callacanthis burtoni* (9 ♂♂, 8 ♀♀), RO = *Rhodospiza obsoleta* (14 ♂♂, 8 ♀♀), RS = *Rhodopechys sanguineus sanguineus* (19 ♂♂, 8 ♀♀), and RSA = *R. s. alienus* (7 ♂♂, 5 ♀♀).

Plumage.—As detailed in Table 2, nine features are useful for separating males of the two taxa, of which the majority are better than average and four are ranked as extremely good (i.e. diagnostic). Fewer features, just three, separate females of *alienus* from *sanguineus*, but all are diagnostic or virtually so (Table 3). As noted by Vaurie (1949), Roselaar in Cramp & Perrins (1994), and Roselaar (1995), there is no evidence of geographical variation in either plumage or size within Asian populations of *R. s. sanguineus*, although Vaurie (1949) thought that Azerbaijani birds might tend to have a slightly longer tail. We have not examined any specimens from Algeria and are thus unable to comment as to the presence (or not) of any variation within *alienus*, although Clement *et al.* (1993) erroneously suggested that the species might only be a winter visitor to this region. In fact, as noted by Isenmann & Moali (2000), there

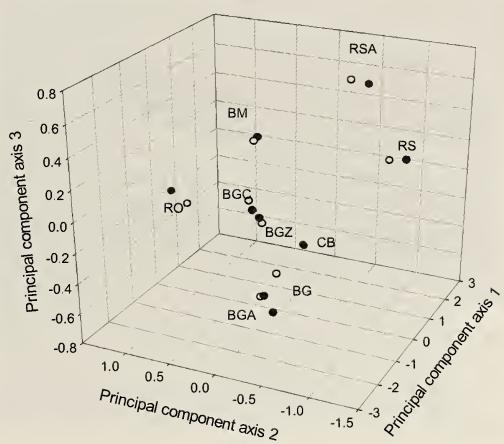


Figure 2. Results of a Principal Components Analysis for wing-, tail- and bill- (culmen) lengths of all taxa of 'desert finches' plotted three-dimensionally. Axis 1 and 2 are correlated as in Fig. 1, whilst axis 3 is positively correlated with wing and tail and negatively correlated with bill.

Résultats d'une Analyse en Composantes Principales pour la longueur de l'aile, la queue et le bec (culmen) de l'ensemble des taxons des roselins des zones désertiques indiqués de façon tri-dimensionnelle. Les axes 1 et 2 sont correlés comme dans la Fig. 1, tandis que l'axe 3 est corrélé positivement avec l'aile et la queue et négativement avec le bec.

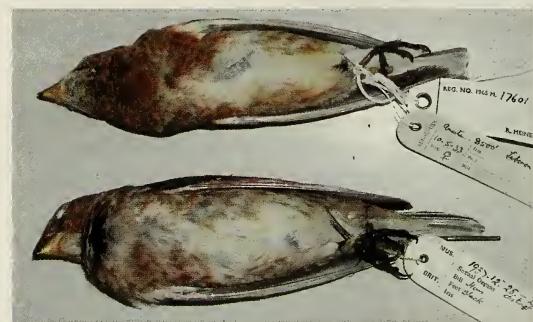
BGG = *Bucanetes githagineus githagineus* (12 ♂♂, 3 ♀♀), BGA = *B. g. amantum* (7 ♂♂, 7 ♀♀), BGC = *B. g. crassirostris* (11 ♂♂, 10 ♀♀), BGZ = *B. g. zedlitzii* (20 ♂♂, 3 ♀♀), BM = *B. mongolicus* (26 ♂♂, 16 ♀♀), CB = *Callacanthis burtoni* (9 ♂♂, 8 ♀♀), RO = *Rhodospiza obsoleta* (14 ♂♂, 8 ♀♀), RS = *Rhodopechys sanguineus sanguineus* (19 ♂♂, 8 ♀♀), and RSA = *R. s. alienus* (7 ♂♂, 5 ♀♀).

is at least one summer (July) record of birds in suitable breeding habitat.

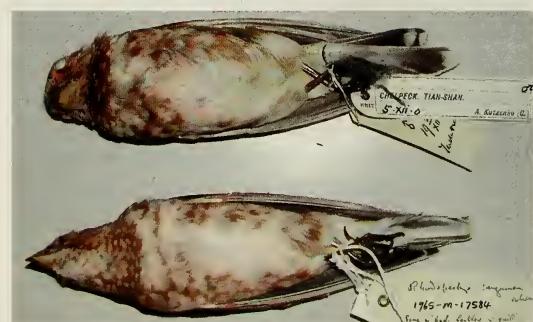
Vocalisations.—The vocal analysis was performed by AvdB and Magnus Robb. Approximately 30 recordings belonging to the two taxa, from Morocco, Turkey and Georgia, and archived in The Sound Approach, UK / Netherlands, database, were included in the comparison. Individual variation proved to be considerable, to the point where any real differences between the two are obscured. Like several other carduelines, it seems that individual pairs may produce their own variants of certain calls, at least during the breeding season. Furthermore, the available recordings of



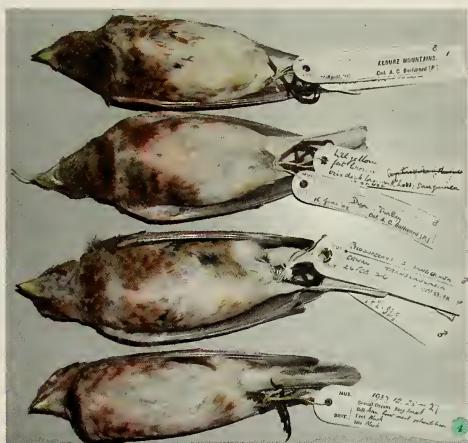
Figures 3–4. Dorsal and ventral views of the same specimens of adult males of *Rhodopechys sanguineus sanguineus* (upper) and *R. s. alienus* (lower) in worn (spring) plumage (Guy M. Kirwan, © The Natural History Museum, Tring)
Vues dorsales et ventrales des mêmes spécimens de mâles adultes de *Rhodopechys sanguineus sanguineus* (en haut) et *R. s. alienus* (en bas) en plumage usé (printemps) (Guy M. Kirwan, © The Natural History Museum, Tring)



Figures 5–6. Dorsal and ventral views of the same specimens of adult females of *Rhodopechys sanguineus sanguineus* (upper) and *R. s. alienus* (lower) in worn (spring) plumage (Guy M. Kirwan, © The Natural History Museum, Tring)
Vues dorsales et ventrales des mêmes spécimens de femelles adultes de *Rhodopechys sanguineus sanguineus* (en haut) et *R. s. alienus* (en bas) en plumage usé (printemps) (Guy M. Kirwan, © The Natural History Museum, Tring)



Figures 7–8. Dorsal and ventral views of the same specimens of adult males of *Rhodopechys sanguineus sanguineus* (upper) and *R. s. alienus* (lower) in fresh (autumn) plumage (Guy M. Kirwan, © The Natural History Museum, Tring)
Vues dorsales et ventrales des mêmes spécimens de mâles adultes de *Rhodopechys sanguineus sanguineus* (en haut) et *R. s. alienus* (en bas) en plumage frais (automne) (Guy M. Kirwan, © The Natural History Museum, Tring)



Figures 9–10. Dorsal and ventral views of the same specimens of first-summer males of *Rhodopechys sanguineus sanguineus* (upper three) and *R. s. alienus* (lower bird) showing inter- and intra-taxon variation (Guy M. Kirwan, © The Natural History Museum, Tring)

Vues dorsales et ventrales des mêmes spécimens de mâles de 1er été de *Rhodopechys sanguineus sanguineus* (les trois d'en haut) et *R. s. alienus* (l'oiseau du bas) illustrant les variations inter- et intra-taxons (Guy M. Kirwan, © The Natural History Museum, Tring)



Figures 11–12. Male *Rhodopechys sanguineus alienus*, Oukaimeden, Morocco, 5 April 2005 (Arnoud B. van den Berg)
Rhodopechys sanguineus alienus, mâle, Oukaimeden, Maroc, 5 avril 2005 (Arnoud B. van den Berg)



Figure 13. Female *Rhodopechys sanguineus alienus*, Oukaimeden, Morocco, 5 April 2005 (Arnoud B. van den Berg)
Rhodopechys sanguineus alienus, femelle, Oukaimeden, Maroc, 5 avril 2005 (Arnoud B. van den Berg)

Rhodopechys sanguineus alienus, femelle, Oukaimeden, Maroc, 5 avril 2005 (Arnoud B. van den Berg)

Figure 14. Male *Rhodopechys sanguineus sanguineus*, Kazbegi, Georgia, 22 June 2005 (René Pop)
Rhodopechys sanguineus alienus, mâle, Kazbegi, Géorgie, 22 juin 2005 (René Pop)

Table 2. Relative hierarchy in those features listed by Roselaar (in Cramp & Perrins 1994) as useful for separating males of *Rhodopechys sanguineus sanguineus* and *R. s. alienus*, on the basis of specimen examination of material held in The Natural History Museum (Tring).

Tableau 2. Hiérarchie relative des caractéristiques mentionnées par Roselaar (en Cramp & Perrins 1994) comme étant utiles pour séparer les mâles de *Rhodopechys sanguineus sanguineus* et de *R. s. alienus*, sur la base de l'examen de spécimens conservés au Natural History Museum (Tring).

Feature	Ranking	Comments
<i>R. s. alienus</i> has only very indistinct black on mantle	good+	
<i>R. s. alienus</i> lacks pink in uppertail-coverts	good+	as noted by Roselaar, there may be a vinous wash in fresh plumage
<i>R. s. alienus</i> lacks black spotting on ear-coverts and breast	good+	see also comment below*
<i>R. s. alienus</i> has central chin and throat grey-white tinged rosy, with narrow brown upper-breast-band	good+	nominate has throat more or less concolorous with breast, and the brown markings on lower breast/belly and flanks are more extensive than in <i>alienus</i>
<i>R. s. alienus</i> has tail more extensively dark (less black) on outer feathers	good-	
<i>R. s. alienus</i> has less red on the flight-feathers	good-	entire wing seems to show less pink and white elements, but there is some overlap with the nominate
<i>R. s. alienus</i> has less red on face and none on fore supercilium	average/good	some have fore supercilium marked with red (e.g. NHM 1937.12.28.27)
<i>R. s. alienus</i> has black of crown more restricted to fore part	average	
<i>R. s. alienus</i> lacks rufous on back, mantle and head-sides	average	this feature is not always apparent in <i>R. s. sanguineus</i>

*Very worn *R. s. sanguineus* can show quite some pink on the underparts, but *R. s. alienus* never shows such coloration (e.g. NHM 1949.Whistler.8802).

alienus were made at a different stage of the breeding season to those of nominate *sanguineus*. Further work on this issue would be interesting to perform, nonetheless, especially to record and compare the vocalisations of the two in winter, when their repertoires are presumably less extensive and flock/species cohesion is more important than pair cohesion or individual advertisement. Even so, even if clear-cut differences did become evident as the result of such fresh analysis, this would not necessarily serve as anything other than interesting additional support for regarding the two taxa as species. Furthermore, we have not conducted playback experiments to ascertain any measure of responsiveness of one taxon to the song of the other. In any case, we note that 'such tests do not provide conclusive proof one way or the other' (Helbig *et al.* 2002).

Age-related and seasonal plumage variation

Based on examination of specimen material at NHM we present the following notes on plumage

variation, both age-related and seasonal. For further details see Shirihai & Svensson (in prep.), and also Figs. 3–10.

R. s. sanguineus

Sexes moderately differentiated, mainly in spring/summer, otherwise seasonal plumage variation rather limited and mostly due to wear. Post-breeding moult (complete) and post-juvenile (partial) moult chiefly in August–September, but pre-breeding moult (adult and first-year) is apparently absent. SPRING Worn. Adult ♂ Wear increases contrast of uniform black cap, face pattern (especially pale supercilium and collar), rose tone to lower back/rump and red at bill base, on lores and around eye; also breast and breast-sides more rufous-cinnamon and black-spotted central breast and flanks, and red basal areas on wings and tail are more conspicuous, but (in both sexes) white tips to remiges virtually wear off. A few also develop a slightly pale pinkish cream-brown throat but not to the same extent as some first-summer ♂♂. Bill changes from greyish to dull warm yellow

Table 3. Relative hierarchy in those features listed by Roselaar (in Cramp & Perrins 1994) as useful for separating females of *Rhodopechys sanguineus sanguineus* and *R. s. alienus*, on the basis of specimen examination of material held in The Natural History Museum (Tring).

Tableau 3. Hiérarchie relative des caractéristiques mentionnées par Roselaar (en Cramp & Perrins 1994) comme étant utiles pour séparer les femelles de *Rhodopechys sanguineus sanguineus* et de *R. s. alienus*, sur la base de l'examen de spécimens conservés au Natural History Museum (Tring).

Feature	Ranked	Comments
Throat and breast pattern is as male and differs from nominate	good+	female <i>R. s. alienus</i> has some pale spots in breast-band and ear-coverts, whereas female <i>R. s. sanguineus</i> has more tawny-brown on flanks and lower breast-sides, and has solid tawny-brown ear-coverts, breast and throat, whilst some even show a slightly pink fore-face (never shown by <i>alienus</i>)
<i>R. s. alienus</i> has less black in crown	good-	
<i>R. s. alienus</i> has upperparts greyer and rump less pink/white	good-	

when breeding. In the hand, r5 white, except broad but incomplete dark subterminal field on inner web (concentrated on outer part) and almost entirely dark outer web, whilst r6 is white, except usually for the black shaft and, occasionally, a diffuse and narrow dark area on the edge of the inner web. **Adult ♀** Duller than ♂, with paler crown patch, reduced capped appearance, more white and duller pink in wings and virtually no pink in tail, and has whiter, less rufous and less spotted underparts (some have chin and throat cream white). The central remiges and primary-coverts, especially, are more narrowly fringed paler pink-red (with browner and less obvious centres); r5 white as in ♂ but has broader and more complete black subterminal field, and r6 has broader and darker area along edge of inner web and at tip, not uniform white. Mantle and scapulars browner and much less heavily streaked, and lower back to uppertail-coverts paler grey-brown, tinged isabelline, whilst lores and eye surround greyish cinnamon-buff (usually almost no red), with paler ear-coverts and less contrasting supercilium. Bill greyish-horn (much less yellow). **First-summer** Very like respective adults and best aged by retained juvenile wing- and tail-feathers, with moult limits as first-winter, but even more contrastingly worn, and extent of subterminal black areas in r5–6 as latter. Much individual variation, especially in ♂♂, with some approaching adult ♀ in overall coloration (but usually safely sexed using same criteria as for adults). Some have, to a varying degree, a white throat and upper breast with almost unstreaked breast and flanks, and thus approach *R. s. alienus*. **AUTUMN Fresh**. **Adult ♂**

Black crown patch is narrowly fringed cinnamon-buff whilst carmine-red of face is duller, upperparts more buff/rufous-brown, less heavily streaked but broadly fringed, and rump/uppertail-coverts tinged pale rosy-pink, although often concealed. Whitish band between breast and flanks and upper belly washed pale pink, with yellowish-buff breast and flanks tipped whitish and unstreaked or virtually so. **Adult ♀** Much as spring, but broad greyish-buff fringes to crown, upperparts and upperwings, and plumage even duller. In both sexes pale fringes to wing- and tail-feathers are broader, with carmine-pink and red basal area partially concealed (thus overall wing pattern less contrasting than in spring). Both sexes differ from first-winter in being evenly fresh, with broader and whiter primary tips. **First-winter** (both sexes following post-juvenile renewal of head, body, lesser and median coverts, perhaps some inner greater coverts and tertials, and a few apparently replace even some inner primaries, primary-coverts, secondaries and r1.) ♂ has overall plumage like fresh adult ♂ but strongly approaches ♀, thus sexual dimorphism obscured. Adult head and underparts patterns strongly reduced and have more extensive pale flecks (chin/throat variable), upperparts essentially warm brown and paler rump than adult. Pink and white areas in remiges and rectrices also generally duller or reduced. Retained juvenile greater coverts have blackish-brown inner web and brown-buff on most of outer web, except narrow pink fringe; the retained primary-coverts are mostly dull brown with narrow fringes. Tail has more extensive dark areas than in adult ♂, and pattern approaches

adult ♀. First-winter ♀ Much like first-winter ♂, but plumage paler with generally much-reduced pink in wing and fringes to greater coverts mainly buff with limited or no pink; terminal half of r5 black except diffuse white tip on inner web, and r6 also has slightly more extensive dark than adult ♀. Both sexes differ from ads in having retained juvenile primaries and tertials browner and less fresh with narrower, less sharply defined and less pure white tips; tail-feathers obviously pointed. JUVENILE Soft fluffy body feathering is generally rather sandy or sandy-brown, with few dark feather centres, very little pink visible on closed wing, and bill is dark horn-yellow becoming brownish at tip.

R. s. alienus

Sexes generally less strongly differentiated than in *R. s. sanguineus* but otherwise they seem to have very similar moult and ageing characteristics. SPRING Worn. Adult ♂ Wear increases contrast of black cap, whitish tips to remiges virtually wear off, and pale areas of face become slightly more pronounced (often with slight pinkish hue to cheeks), but much more limited seasonal variation than in *R. s. sanguineus*. Like latter, pink-red basal areas to wings and tail more exposed and bill changes from greyish to dull warm yellow when breeding. In the hand, unlike *R. s. sanguineus*, r5 is mostly dark/black except for whitish tip, and thus lacks dark subterminal field to inner web, whilst r6 is also almost completely dark/black, including the outer web, except for an usually sharp wedge on the inner web. Adult ♀ Very similar to ♂ (many probably impossible to sex in the field), but overall duller with paler and less solid crown and much-reduced greyish nape; also white throat patch slightly less sharply defined and cheeks mostly lack pinkish; underparts virtually identical to ♂, but remiges (especially central part) and primary-coverts more narrowly fringed paler pink. Tail pattern recalls ♂ but pale tips rather conspicuously reduced and these and wedge on inner web of r6 diffuse and sullied pale buff-brown. Bill generally duller with less yellow tinge. First-summer Very like respective adults and best differentiated by retained juvenile wing- and tail-feathers, and moult limits as in first-winter. Extent of subterminal black areas in r5–6 also as first-winter. Due to reduced dark cap and pink in wing, both sexes are less strongly patterned than adults and are less easily sexed, whilst especially some first-summer ♂♂

can approach adult ♀ in overall plumage. AUTUMN Fresh. Adult ♂ Black crown patch narrowly fringed cinnamon-buff and duller, pinkish facial areas reduced or lacking, upperparts slightly more buffish, and brown-buff breast and flanks more obviously tipped whitish. Adult ♀ Much as spring. Both sexes differ from first-winters in being evenly fresh with broader, more solid and whiter primary tips. However, in comparison with adult *sanguineus* the primary tips are narrower and less pure white (whitish-cream with a pale buff-brown tinge). First-winter ♂ Like fresh adult ♂ but overall plumage strongly approaches ♀ (especially adult), thus sexual dimorphism obscured. However, unlike most first-winter ♀♀, crown darker and more clearly defined, and some have a hint of grey on nape (lacking in first-winter ♀), whilst pink edges of wing substantially broader and brighter. Retained juv greater coverts have brown inner webs and brown-buff on most of outer web; the retained primary-coverts are mostly blackish brown except for a thin pinkish edge to outer web. Tail (retained juvenile feathers) has more extensive dark areas than adult ♂ and pattern approaches adult ♀ with even more diffuse and buffier tips, and reduced (or virtually lacks) pale wedge on inner web of r6. First-winter ♀ Much like first-winter ♂ but paler with strongly reduced dark in cap, no grey on nape, reduced pink in wing and has fringes to greater coverts mainly buff; tail pattern variable, as in first-winter ♂ or with even more obscure pale areas. Both sexes differ from adults in having retained juvenile primaries and tertials, which are browner basally, less fresh and have considerably more diffuse and buffier tips; tail-feathers distinctly pointed. JUVENILE Not examined but probably close to *R. s. sanguineus*.

Discussion

Allopatric taxa, as noted by Helbig *et al.* (2002), always present particularly problematic cases when endeavouring to ascertain whether they such forms should be regarded specifically, for as these authors succinctly state: 'Assignment of species rank in such cases will necessarily be based on hypothesis, rather than on proven facts.' In the present case, as discussed elsewhere (e.g. Kirwan & Gregory 2005), the two taxa concerned may well prove to be the sole constituents of the genus *Rhodopechys* and they are clearly rather close in general morphology, ecol-

ogy and habits. Nonetheless, they are also easily diagnosable in virtually all plumages, with only first-summer males liable to any confusion at their only point of contact, the museum cabinet! In addition, females of the two forms, especially, clearly separate using a multivariate statistical analysis of mensural data (see Table 1, and Figs. 1–2), and the degree of segregation is quite marked in comparison to that exhibited by what have traditionally been viewed as closely related taxa, although Groth (1998) found *Rhodopechys sensu lato* to be polyphyletic. In sum, again bearing in mind the guidelines of Helbig *et al.* (2002) it seems that the two *Rhodopechys* demand recognition under any of the pattern-defined species concepts currently operating (see Sluys & Hazeveld 1999) and have certainly achieved allospecies status, but whether they have achieved full species rank under the modern definition of the Biological Species Concept must probably await the results of molecular analysis. In contrast, the two taxa discussed here would surely be recognised as species under the framework of the Metapopulation Lineage Concept of species (or General Species Concept), application of which it was argued recently by de Queiroz (2005) not only provides a means of unifying how modern-day biologists diagnose 'species,' but also returns more closely to Mayr's original conceptualisation of what constitutes a species, rather than merely focusing on the attribute of reproductive isolation.

Like several other taxa recently assigned allospecies or full species status, the distributions of the two finches discussed here accord rather well with an increasingly recognised biogeographical phenomenon under which North Africa is viewed as something of a refugium for endemic taxa. In several cases, e.g. the two Desert Warblers *Sylvia deserti* and *S. nana* (Shirihai *et al.* 2001), the closest extant relative is restricted to Central Asia and the Middle East. As already noted for the genus *Sylvia*, but probably for many other additional groups, quite plausibly even the genus *Rhodopechys*, the long drought known as the Messinian Crisis, which peaked some 5.5–8.5 MYA and which led to the entire Irano-Turanian region becoming extremely dry and to the Mediterranean shrinking in size (Suc 1984, Tchernov 1988), may have played an important role in this process. Again, to some extent the answers to such enigmas lie in genetics.

Nonetheless, we believe, as this paper demonstrates, that the museum skin continues to hold a high value in avian taxonomic studies and, like Collar (2004), we bemoan the current trend to seemingly regard molecular tools as the only means to adequately progress such research.

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Ecology, voice and territorial competition of two forest eagle owls, Fraser's Eagle Owl *Bubo poensis* and Akun Eagle Owl *B. leucostictus*

Françoise Dowsett-Lemaire

L'écologie, les vocalisations et la compétition territoriale de deux grands-ducs forestiers, le Grand-duc à aigrettes *Bubo poensis* et le Grand-duc tacheté *B. leucostictus*. Cet article présente des observations de deux grands-ducs forestiers *Bubo* spp., provenant surtout du Congo et du Cameroun (1989–2001) mais aussi du Ghana, du Nigeria, de la Guinée Equatoriale et du Rwanda. Les aires de distribution du Grand-duc à aigrettes *Bubo poensis* (forme nominale) et du Grand-duc tacheté *B. leucostictus* se recouvrent largement, sauf que le premier atteint des altitudes nettement plus élevées. *B. poensis* fréquente surtout les lisières forestières, les forêts assez dégradées et ne s'observe que rarement en forêt primaire à voûte fermée. Il a un large spectre alimentaire (insectes et petits vertébrés), tandis que *B. leucostictus* est surtout ou même exclusivement insectivore. Ce dernier évite les milieux les plus dégradés et est l'espèce dominante des vieilles forêts secondaires ou forêts primaires sempervirentes (dont la voûte présente naturellement de petites ouvertures): c'est dans ce type de forêt que les deux *Bubo* peuvent entrer en contact.

Les émissions vocales les plus fréquentes de *B. poensis* sont des roulades courtes ou longues (jusqu'à plusieurs secondes), émises par des oiseaux seuls ou en duo. La forme *vosseleri* de Tanzanie produit de longues roulades identiques (Fig. 1). On entend aussi en saison des appels sifflés puissants et aigus, apparemment produits par des jeunes; ces sifflements n'ont aucune valeur agressive. Les émissions vocales les plus caractéristiques de *B. leucostictus* sont des appels bas, étouffés, courts et peu puissants (*roh, roh . . .*), émis par des oiseaux seuls (apparemment le mâle adulte), tandis que les couples peuvent chanter de concert des duos de roulades courtes, avec parfois un sifflement ascendant court. Ces roulades courtes sont en général un peu plus lentes que celles de *B. poensis* (plutôt un staccato), et au nord Congo et Cameroun adjacent il existe une variante dialectale particulière, où le second oiseau termine sa roulade par une double exclamation (*kokokokok, ka-kâh!*). On entend aussi (rarement) des appels sifflés longs, plus rauques et plus 'sinistres' que ceux de *B. poensis*, se rapprochant un peu des longs cris du Grand-duc de Shelley *B. shelleyi*. Il est probable, mais non encore prouvé, que ces longs sifflements soient le fait de jeunes oiseaux.

La repasse de la longue roulade de *B. poensis* est le moyen le plus efficace de provoquer une réponse agressive chez *B. poensis* comme chez *B. leucostictus*, mais ce dernier réagit avec ses vocalisations propres. Il semble que les deux espèces défendent des territoires interspécifiques là où elles entrent en contact, comme les distances observées entre individus des deux espèces dans un même type de forêt sont de l'ordre de 1 km ou plus. La prudence s'impose quant à l'identification d'un oiseau réagissant à cet enregistrement, mais la longue roulade n'a jamais été entendue chez *B. leucostictus*, et les notes rauques de ce dernier (*roh, roh, . . .*) jamais chez *B. poensis*. D'autres cas de 'countersinging' interspécifique chez des espèces congénériques ont été observés en Afrique.

Summary. Observations are presented from many encounters with two eagle owl species, mainly in Congo and Cameroon (1989–2001). The ranges of nominate Fraser's Eagle Owl *Bubo poensis* and Akun Eagle Owl *B. leucostictus* are fairly similar, except that the former extends to much higher altitudes. These large owls are partly separated by their ecological requirements (*B. poensis* preferring secondary situations, *B. leucostictus* old secondary or primary forest with small openings) and diet (*B. poensis* taking a range of insects and small vertebrates, *B. leucostictus* mainly or exclusively insects). However, they occasionally come into contact, especially in open-canopy semi-evergreen forest. The most frequent vocalisations of *B. poensis* are guttural trills (or purring

rattles), short or long (several seconds), given singly or in duet; the form *vosseleri* of Tanzania produces identical trills (Fig. 1). High-pitched, far-carrying modulated whistles are heard persistently at some times of year and circumstantial evidence suggests they are produced by immatures; they have no known aggressive or reactive purpose. The most characteristic call of *B. leucostictus*, always produced by single birds (apparently males), is a series of low, soft grunts *roh, roh, . . .*; short, hoarse ascending whistles and short, slow trills are also given, singly or in duet. In northern Congo and south-east Cameroon at least, this duet has a distinctive dialectal variant, with the second bird producing a slow (staccato) trill ending in two exclamatory notes (*kokokoko, ka-kah!*). In Ghana however, duets heard were hard to distinguish from those of *B. poensis* (with short trills). Long whistles are also occasionally produced by *B. leucostictus*, but are somewhat lower pitched, hoarser and more ‘sinister’ than those of *B. poensis*; they tend to recall those of Shelley’s Eagle Owl *B. shelleyi*. Tape playback of the long guttural trill of *B. poensis* (never produced by *B. leucostictus*) elicits strong reactions in *B. leucostictus* too, but species-specific vocal characters are preserved in interspecific reactions. It appears that both eagle owls may defend interspecific territories where they come into contact; distances measured between eagle owls of different species being 1 km or more. Interspecific countersinging is known in several other pairs of congeneric species in the African tropics.

Whilst undertaking systematic searches for forest nightjars *Caprimulgus* spp. in northern Congo in 1997 (Dowsett-Lemaire & Dowsett 1998a) we also played a few tapes of owls, including the long guttural trill or purring rattle of Fraser’s Eagle Owl *Bubo poensis* (last motif in Chappuis 1978). This was done along a narrow, 25 km-long track crossing broken-canopy semi-evergreen forest in Nouabalé-Ndoki National Park. We located eight territories of *Bubo* species along this track (three of *B. poensis*, five of Akun Eagle Owl *B. leucostictus*), and it was soon obvious that both species were equally interested in tape playback of *B. poensis*.

This note assembles various observations on the ecology and vocal behaviour of both *Bubo* species, collected mainly in Congo-Brazzaville and Cameroon over a period of 12 years (1989–2001). Other observations come from Ghana (2004–05), south-east Nigeria (1988), Equatorial Guinea (1998) and Rwanda (1989–90). Unlike other forest owls of the genera *Glaucidium*, *Scotopelia* and *Jubula*, these two *Bubo* are rather bold: either spontaneously or when responding to playback, they do not hesitate to expose themselves in full view on large branches, facilitating positive identification. It has thus been possible to learn something of their vocal behaviour and interactions.

Distribution

B. poensis. Nominate *B. poensis* is somewhat more widespread than its congener, occurring through-

out the Guineo-Congolian region (including Bioko), from Sierra Leone and Guinea to Ghana, and Nigeria to western Uganda and northern Angola (Kemp in Fry et al. 1988, Dowsett & Forbes-Watson 1993, Demey & Rainey 2004). It covers a wide altitudinal range, up to 2,200 m in Cameroon (Mt Oku: Dowsett-Lemaire & Dowsett 1998b) and up to at least 2,000 m in Nyungwe Forest in Rwanda (Dowsett-Lemaire 1990) and 2,100 m in south-west Uganda (Friedmann & Williams 1968). Another form, *B. p. vosseleri*, is widespread in the forests of Tanzania, from the Usambaras (Evans et al. 1994) and South Pare (Burgess et al. 1998), south to the Ulugurus (Hunter et al. 1998) and Udzungwa Mountains (Butynski & Ehardt 2003); the overall altitudinal range is at least 200–1,700 m. The Tanzanian form is often considered a separate species, Usambara or Nduk Eagle Owl *B. vosseleri*, but recent vocal evidence supports conspecific treatment (see below). Nominate *B. poensis* is a Guineo-Congolian near-endemic, extending to high altitudes in Cameroon and the Albertine Rift, whereas *B. poensis sensu lato* belongs to two biomes, Guineo-Congolian and Eastern (Dowsett-Lemaire & Dowsett 2001), with Afromontane intrusions.

B. leucostictus. This is a Guineo-Congolian endemic with much the same horizontal distribution as nominate *B. poensis*, except that it does not appear to reach East Africa. It is much more

restricted in altitude, as it is known only from lowland forest. Altitudes are generally not given in the literature (e.g. Fry *et al.* 1988). My own records are from near sea level to only 600 m (Congo, Odzala) and 500 m (south-east Cameroon), whereas I heard it to 700 m in Ghana (Atewa range). In particular, it appears to be completely absent from montane western Cameroon, with firm records in the west only from very low altitudes, in Korup National Park, Yabassi and the Campo area (Important Bird Areas CM019, CM026 and CM031 in Fishpool & Evans 2001). At Yabassi (near Yingui), my single record was just below 500 m.

Ecology

B. poensis. All general works seem to agree that this species is rather unspecialised, being frequently found in secondary situations (e.g. at forest edges or in farmbush, early stages of forest regeneration, old secondary forest) and much more rarely in the heart of primary forest (e.g. Brosset & Erard 1986). My 27 personal encounters with the species were in the following habitats:

- gardens and farmbush some way from forest edge: two (Cameroon, Congo);
- ecotone between forest and cultivation/farm-bush: nine (Ghana, Cameroon, Equatorial Guinea, Congo, Rwanda);
- edge of old secondary forest along roads: five (Ghana, Cameroon, Congo);
- edge of primary forest giving onto large natural clearing (salt-pan): one (Lobéké in Cameroon);
- mosaic of forest patches and savanna: two (Bakossi Mts in Cameroon, Kyabobo in Ghana);
- inside selectively (moderately) logged forest: two (Congo);
- inside primary or near-primary forest with a naturally broken canopy, either semi-evergreen (Nouabalé-Ndoki in Congo) or Afromontane (Nyungwe in Rwanda): five;
- inside closed-canopy evergreen forest: one (Oban Hills, Nigeria).

Prey choice seems to be very wide in this species, ranging from insects to frogs, birds, small mammals (Bates 1930, Chapin 1939) and 'also occasionally fruit' (Kemp in Fry *et al.* 1988, source

untraced); in a Kupe garden a *B. poensis* also captured several tortoises in an open terrarium (C. Wild pers. comm.). Playback of the purring calls of this owl often elicits vocal responses in other species, apparently through alarm: Demidoff's Galago *Galagooides demidoff* (frequently), Guereza Colobus *Colobus guereza*, and also apparently once among a group of roosting Plumed Guineafowl *Guttera plumifera* and in a small owl, Sandy Scops Owl *Otus icterorhynchus* (pers. obs. in Cameroon and Congo). Similarly Butynski & Ehardt (2003) noticed that dwarf galagos *Galagooides* spp. reacted strongly to the calls of *B. p. vosseleri* in the Udzungwas of Tanzania, 'by giving long series of alarm and other calls,' and relate this behaviour to that of potential prey.

B. leucostictus. Data on the habits of this owl are more scanty. In Gabon Brosset & Erard (1986) consider that it is probably more a bird of very old secondary forest, found overall in more developed stages of forest regeneration than *B. poensis*. My 21 personal observations were in the following habitats:

- edge of old secondary forest along roads: two (Congo);
- in open canopy of selectively logged forest: four (Ghana, Congo);
- in a small natural clearing (salt-pan) with scattered trees, in the middle of primary forest: one (Nki in Cameroon);
- in (almost) untouched semi-evergreen forest, with naturally open canopy: 14 (Congo, Cameroon). This includes six observations near a small track in Nouabalé-Ndoki National Park (Congo), where the track was rather overgrown and no wider than 2–3 m. The other eight observations were in untouched (unlogged) forest, mainly in Odzala National Park and Nouabalé-Ndoki National Park in Congo, also at two sites in south-east and western Cameroon.

Food-wise, although slightly larger than *B. poensis*, this owl seems to be essentially insectivorous, which Bates (1930) and Chapin (1939) tentatively attributed to its weak-footed structure and small bill. All stomach contents of specimens contain exclusively insects, although a captive bird accepted oil-palm fruits and once nibbled leaves of a Flamboyant tree *Delonix regia* (Jellicoe 1954). In

Gabon, Brosset & Erard (1986) noted that a captive immature accepted only large insects and refused small vertebrates. Jellicoe (1954) observed similar behaviour in her captive, but it did swallow pieces of rodent if previously chopped up. Beyond the age of six months, it managed to break up a whole dead rat by dragging and 'walking' on it, but this and the process of eating it might take the whole night. If 'accidentally given a rat that was not quite dead, the bird appeared terrified of the slight movement' (Jellicoe 1954: 160). Bates (1930) saw one catching cockroaches in the air; in southern and northern Congo I observed birds in moonlight flycatch on the edge of a small track. Chappuis (1978) saw one flycatching in Côte d'Ivoire. I have never noticed reactions of fear among small mammals or other bird species near a calling *B. leucostictus*.

To summarise, despite the fact that R. J. Dowsett and I camped more often at forest edges than inside forest, there is no doubt that *B. poensis* is more often encountered in secondary situations (even gardens) than its congener; the main habitat of *B. leucostictus* is probably old secondary and primary forest, provided the canopy is somewhat open (naturally or through selective logging). On the other hand, it seems that *B. poensis* is only exceptionally encountered in closed-canopy primary forest: my single record in such habitat (Oban Hills, Nigeria) is based on a bird giving the high whistle all night long, probably an immature (see below). We were miles away from the edge of the forest, having become lost for two days. In

south-east Cameroon and at Yabassi in the west, we spent many nights inside primary forest on walking expeditions: by far the main *Bubo* species encountered was *leucostictus*, the only contact with *B. poensis* being on the edge of a very large salt pan (Lobéké). The two species were nevertheless observed in relatively close proximity in the Mayombe of Congo (old secondary forest at road edges) and in semi-evergreen forest in Nouabalé-Ndoki National Park.

Voice

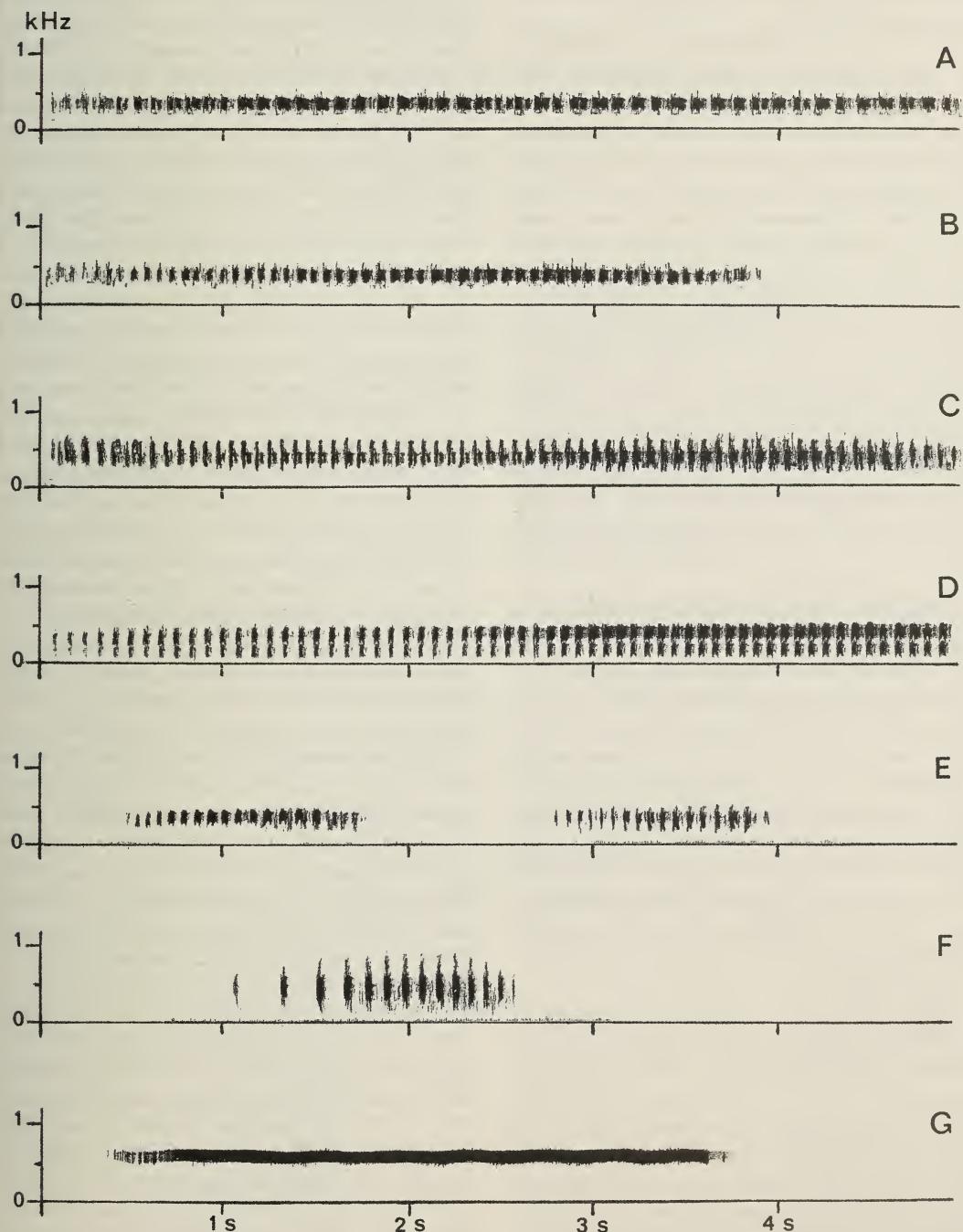
The voice of both species is rather varied, with calls falling into two main categories: whistles and low-pitched guttural trills. In addition *B. leucostictus* frequently produces a short grunt which has no equivalent in its congener.

B. poensis. The most frequently heard calls are guttural trills (also called purring or grunting trills, as in Borrow & Demey 2001); they can be given in isolation or by pairs in duet. They are the 'roulades' in Chappuis (1978, 2000). Unprovoked pairs often call to each other softly *korororororo*, *kororororo*, each call lasting 1–2 seconds (Fig. 1E). Birds can give longer trills under certain circumstances, and usually do so when provoked by playback. These long trills can again be given by isolated birds as well as in duet; they last several seconds (often 3–5) and are somewhat modulated in pitch or volume. Examples are illustrated in Fig. 1, B and C belonging to two members of a pair reacting to playback, one starting to call before the other finished; they show some individual varia-

Captions to figures on opposite page

Figure 1. A–E: sonograms of guttural trills of Fraser's Eagle Owl *Bubo poensis*, including Usambara Eagle Owl *B. p. vosseleri* (Tanzania): A: Uluguru Mountain, Tanzania (tape-recorded in November 1995 by C. Carter); B and C: Nyungwe Forest, Rwanda (produced by both members of a pair, tape-recorded by FD-L in November 1989 on Sony TCM-150 cassette recorder, modified by Mineroff, with Beyer Dynamic microphone and parabolic reflector); D: captive bird held in Antwerp Zoo, Belgium (from Chappuis 1978); E: pair duetting in Côte d'Ivoire (from Chappuis 1978). F: short, slow trill (staccato) produced by Akun Eagle Owl *B. leucostictus*, Côte d'Ivoire (from Chappuis 1978); G: high whistle of (presumed) immature *B. poensis* (Nyungwe Forest, Rwanda, January 1990, tape-recorded by FD-L). Sonograms produced on a Kay Electric Sonograph 7029A, using wide band filter.

A–E: sonogrammes de roulades du Grand-duc à aigrettes *Bubo poensis*, y compris la forme *B. p. vosseleri* de Tanzanie: A: Uluguru Mountain, Tanzanie (enregistré en novembre 1995 par C. Carter); B et C: Forêt de Nyungwe, Rwanda (roulades produites par les deux membres d'un couple et enregistrées par FD-L en novembre 1989, avec un enregistreur-cassette Sony TCM-150 modifié par Mineroff, et un microphone Beyer Dynamic centré sur parabole); D: oiseau captif du zoo d'Anvers (enregistrement publié par Chappuis 1978); E: duo d'un couple en Côte d'Ivoire (tiré de Chappuis 1978). F: trille (staccato) du Grand-duc tacheté *Bubo leucostictus* (Côte d'Ivoire, tiré de Chappuis 1978); G: sifflement pur d'un *B. poensis* (probablement un immature, Rwanda, janvier 1990, enregistré par FD-L). Sonogrammes produits avec un spectrographe Kay Electric 7029A, en bande large.



tion. Playback attracted these birds to within 3–4 m of the car, on which the recorder was resting; at one point one bird was on one side of the car, and its mate on the other.

Two young birds fledged in the same territory in Nyungwe Forest, Rwanda, in December 1989, a month after I recorded the adults: they produced high-pitched, thin *weeeu* whistles, whilst the adults were rattling in duet nearby. A month later, when camping at exactly the same spot, all I heard was a pure, drawn-out, powerful, eerie whistle (Fig. 1G, as in cut one in Chappuis 1978, 2000), given almost all night long without interruption at a mean rate of two whistles per minute. This bird was joined by another, producing the same type of whistle, in the middle of the night. Although I assumed at the time (Dowsett-Lemaire 1990) that these were produced by the adult pair, it seems far more likely they were produced by the immatures; they were no more than a louder, slightly longer version of the whistle produced by the fledglings. Playback of this vocalisation did not produce any reaction. I have heard this eerie, powerful whistle in several places (Nigeria, Congo, Ghana), sometimes close to a pair of adults producing a duet of trills, i.e. the whistling bird is clearly tolerated by the territorial pair, which again suggests the whistles come from a young bird. On other occasions, the whistle was produced in isolation, often all night, but this bird or others present never reacted to playback, not even to the aggressive trill call. In Ghana in particular, two trials of playback in late December and January near whistling birds together with trilling birds (presumably a family) did not provoke an aggressive reaction, which suggests that the breeding cycle was far enough advanced that the adults had entered a period of territorial rest.

As in other owls, *B. poensis* is most vocal c.1 hour after dark (presumably after the first bout of feeding), though some short trills can be given long before that, in late afternoon and around dusk. Birds also call at other times in the night, and until just before dawn. The persistent long whistles of presumed immatures are often heard all night, shortly after dusk until dawn. Adults do not call every night: at any camp near an occupied territory it is indeed usual to hear vocal activity on only one of three or four nights, or even a single night in a week. Tapes have been played at known spots without reaction, either because the pair had

moved slightly or because they had entered into a rest phase.

The form *vosseleri* from Tanzania is not as well known but it produces guttural trills identical to those of nominate *poensis* (compare Fig. 1A with 1B recorded in Rwanda). Until C. Carter obtained a good tape-recording in the Ulugurus (Hunter *et al.* 1998) it had been difficult to interpret the written descriptions of this owl's calls (as in Olney 1984, Evans *et al.* 1994). A copy of Evans's tape from the Usambaras is virtually inaudible. Olney, who observed them in captivity mentioned 'a repeated (three or four times) regular double syllable' and Evans *et al.* 'bursts of wubbering notes.' Carter's tape put an end to the mystery, and indeed by playing my tape of the duetting pair of nominate *B. poensis* from Rwanda, he was able to bring the Uluguru bird closer whilst a second was also stimulated to call. Butynski & Ehardt (2003) heard many similar guttural trills ('loud purring') in the Udzungwas; they also remarked that high whistles have not yet been heard in this form, but the limited field observations are insufficient to prove that they do not exist, and surely immatures are likely to produce a call differing from the adult trills.

The trills of members of a pair of *B. poensis* show some individual variation, probably sexual. The structure of the notes in one bird is a little more square, less narrow and high than in its mate; these structural differences appear clearly in the duet recorded in Rwanda (Fig. 1B, C) and appear again in another duet recorded in Côte d'Ivoire (Fig. 1E). If indeed they are sexually based, the main bird recorded by C. Carter in the Ulugurus (Fig. 1A) was presumably of the same sex as B, and the captive bird recorded in Antwerp (nominate *poensis*, Fig. 1D) of the sex of C.

B. leucostictus. This species overall appears less demonstrative and noisy than *B. poensis*, but vocalisations are quite varied. By far the most frequent and characteristic call is a low-pitched short grunt *roh, roh, roh . . .* repeated at intervals of a few seconds (presented in cut one in Chappuis 2000). I heard it on 14 of my 21 encounters with the species, usually unprovoked by playback (but see below). This has never been heard in *B. poensis* and appears to be the most reliable call for species identification. It is produced by a single bird, even if a mate is present. There is specimen evidence that the bird responsible is the male, as A. Forbes-

Watson in Liberia (*in Colston & Curry-Lindahl* 1986) collected a male after following it for some time, and the bird was giving 'a deep, measured soft grunting *hu* (2 sec interval).' As Forbes-Watson remarked, it does not carry very far. I measured a distance of audibility of barely 500 m, in an area of fairly open-canopy forest (Congo). The call can be produced over long periods of up to an hour, just after dusk and at any time during the night until almost dawn. This most distinctive call was not described by Kemp (*in Fry et al.* 1988).

B. leucostictus also produces short trills, sometimes very similar to *B. poensis* but usually slower (then more staccato than a trill, Fig. 1F); they usually last c.1 second. I have never heard a long trill like that of *B. poensis*. One bird I watched in full view on a dead tree in Congo started with a low, hoarse ascending whistle *whooooee* followed by several short, soft staccato trills *kokokokokok*; it then continued with a series of grunts *roh, roh . . .* for at least 40 minutes. These staccato notes and hoarse whistles are all presented by Chappuis (1978, 2000). Duets exist but consist only of the short staccato trills. I have heard duets of staccato trills in six pairs (Congo, Cameroon and Ghana). In northern Congo and south-east Cameroon, several pairs observed in moonlight with powerful torches produced duets of staccato *kokokoko, kokoko ka-kah*, the first being close to a slow version of a *B. poensis* trill, the second (by the female?) ending in a most distinctive double exclamation (heard throughout Nouabalé-Ndoki in Congo, Boumba-Bek and Nki in south-east Cameroon). In Cameroon, one member of a pair preceded the slow trills by series of *woff, woff, woff . . .* A sort of bark can also be heard in an excited (or alarmed) bird. In Ghana, the duets heard in two places consisted of faster trills nearly identical to *poensis*, but eventually one bird switched to the typical deep grunt *roh, roh, roh . . .* Some duets are produced spontaneously, others provoked by playback, thus there is no doubt that they have territorial value. Neither the *roh* calls nor the slow trills are given every night; as in *B. poensis*, they may be heard on one of several evenings or nights, or just once in a week.

High-pitched whistles have been heard twice in Congo (Mayombe at Goumina, Odzala National Park), with one bird eventually seen well. These differ from *B. poensis* by being noticeably hoarser in tone, lower pitched and rather 'sinister':

eehoooooooooh, lasting 2–3 seconds with a slight drop in pitch at the end. They are intermediate between the high, powerful whistles of (presumably) immature *B. poensis* and the dismal screams tape-recorded in a captive Shelley's Eagle Owl *B. shelleyi* from Liberia (*in Chappuis 1978, 2000*). One bird tape-recorded in the Mayombe was answered by another with a short, hoarse whistle. The night before, all I had heard in the area was the distinctive *roh*. Possibly this call is—by analogy with *B. poensis*—produced by immatures, but why it seems to be given so rarely is unknown.

To conclude, vocalisations of *B. poensis* carry further afield than those of *B. leucostictus*, especially the high-pitched whistles of presumed immatures. These whistles do not seem to have any territorial value. The most characteristic call of *B. poensis* is the long guttural trill (several seconds duration), while that of *B. leucostictus* is the low grunt *roh*. Both species give short trills or staccato trills, singly or in duet, and it is not always easy to attribute them to species.

Tape playback and interspecific reactions

B. poensis. This species reacts well to playback of short or long trills, but was never observed (so far) to react to playback of high whistles. Playing the long trill from Chappuis 1978 (Fig. 1D, obtained in a captive bird) can elicit pairs to answer with a duet of short or long trills, and isolated birds also answer with long trills. Similarly, a positive reaction was obtained with *B. p. vosseleri* from Tanzania by playing a duet of trills of *B. poensis* from Rwanda (Hunter *et al.* 1998).

B. leucostictus. None of the usual vocalisations carries very far, and practice taught me that the best way of locating this owl on a silent night is by playing the long trill of *B. poensis* (last cut in Chappuis 1978). The following experiments were carried out.

1. Mbeli Camp in Nouabalé-Ndoki National Park, Congo, April 1996. Small clearing in primary semi-evergreen forest. No owl calling. Playback of long *B. poensis* trill provoked a vocal reaction in the local pair of *B. leucostictus* within seconds: pair started duetting with brief staccato trills, second bird ending with a double exclamation, thus *kokoko, ka-kah!* (birds well seen in strong torchlight).

2. Nouabalé-Ndoki National Park, 25 km of track from near Bomassa to Ndoki, April–May 1997. Systematic searches for nightjars were carried out in the second half of the night (Dowsett-Lemaire & Dowsett 1998a). The *B. poensis* tape was played on seven of eight nights, but not at every stop (through lack of time); distances were measured with the car odometer. Three initially silent individuals replied to playback of *B. poensis* trills with a series of low grunts *roh, roh...*. A fourth bird was uttering this call spontaneously and playback of the *B. poensis* rattle provoked it into a short staccato *kokokokoko*. The fifth bird was also calling spontaneously; the *roh, roh* call was tape-recorded and played back, but this did not produce much reaction (more grunts at the same distance). Three *B. poensis* were also located along this track; locations of either species of *Bubo* were from one to several kilometres distant. The highest concentration was one *B. leucostictus* followed by a *B. poensis* just under 1 km further, followed by a *B. leucostictus* 1 km further. The other two *B. poensis* were many kilometres away from the nearest *B. leucostictus*.

3. Boumba-Bek, south-east Cameroon, December 1997. Playback of *B. poensis* trill provoked a pair of *B. leucostictus* to answer, first by a short loud bark (in alarm?), then a duet of staccato *kokokoko, kokoko ka-kah!*

4. Nki Forest, south-east Cameroon, January 1998. Small natural clearing (salt-pan) with scattered trees, in the heart of primary forest. We camped for five nights at this spot. No *Bubo* spp. called on the first night; the second evening I played the long trill of *B. poensis*: a pair of *B. leucostictus* immediately perched on a bare branch of a large tree and, after one or two *woff-woff*, answered with the usual duet of staccato trills, ending in *ka-kah!* On the third evening, one bird was grunting (*roh, roh...*), without prompting, just after dusk. On the fourth evening, the pair was flying around the clearing, from tree to tree, uttering series of *wof-wof-wof-wof-wof...* and occasional brief staccato notes; they were quite visible, as the night was clear, with half moon. They were quiet on the fifth night. This demonstrative behaviour gave the impression that it had taken them three nights to make quite sure that the ‘intruding’ *B. poensis* had been scared far away.

Discussion

There is no doubt that the long aggressive trill of *B. poensis* is well understood by *B. leucostictus*; many pairs or individuals of the latter react to it with their own typical vocalisations, low grunts or short staccato trills (usually in duet if both members of the pair are present). *B. leucostictus* has never been heard producing the long trill even when clearly reacting to the *B. poensis* tape (as above). Species-specific characters are preserved in interspecific reactions. Despite these two eagle owls being partly separated by their ecological requirements, by diet and certainly by altitude in montane regions, they come into competition in several places, particularly in semi-evergreen forest with an open canopy, or in lightly logged forest. In two places in the Mayombe, I had both species within 1 km or slightly less of each other. In Nouabalé-Ndoki, the interspecific distance was of the order of 1 km or more. Playback experiments and direct observations of localised individuals suggest that they maintain separate territories. However, these birds do not call every night, limits of territories are difficult to define in nocturnal species, and further observations are required to establish whether territories are totally exclusive of those of congeners.

Interspecific countersinging between congeneric species is an uncommon phenomenon in the African tropics, but is used persistently between certain species pairs. One common example is that of Yellow-billed *Tauraco macrorhynchus* and Green Turacos *T. persa*, where they meet in Gabon and Congo. They defend interspecific territories through countersinging, i.e. the song of one provoking a vocal response in the other (Brossel & Erard 1986, Dowsett-Lemaire 1997). In the forests of northern Malawi, three species of apalis warblers defend interspecific territories through countersinging, keeping separate territories either horizontally (Grey Apalis *Apalis cinerea* and Chestnut-headed Apalis *A. chapini*), or vertically (Bar-throated Apalis *A. thoracica*, with *A. chapini* above it): Dowsett-Lemaire (1989). In parts of northern Ghana, Red-winged Warbler *Heliolais erythropterus* and Tawny-flanked Prinia *Prinia subflava* occur in high densities side by side in open woodland, and have been heard countersinging on numerous occasions (pers. obs., 2004–05); they seem to maintain (at least partial-

ly) exclusive territories, at least at the peak of the rainy season if not in the dry season (when seen closer to each other). These two warblers have sometimes been placed in the same genus; they appear to compete where *Heliolais* is particularly common. In Malawi where the latter is more local, I had not noted this type of interaction. In all these cases, as in the *Bubo* species, each bird uses its own species-specific vocalisations and evidently learns to recognise the other species's song through competition.

One more case of interspecific countersinging involves two small forest batises, Verreaux's Batis *Batis minima* and Bioko Batis *B. poensis*. In northern Congo (where I never found *B. minima*), the tape of *B. minima* often provoked *B. poensis* into song, and in Equatorial Guinea (where both occur: Dowsett-Lemaire & Dowsett 1999), *B. minima* readily reacted to *B. poensis*. However, this problem is complicated by the fact that their songs are rather similar, even sometimes identical, and Erard (in Urban *et al.* 1997: 599) observed countersinging in Gabon where 'they seem to copy one another when they meet'!

Finally, a word of caution: since playback of a tape-recording of *Bubo poensis* is equally likely to call up a *B. leucostictus*, observers should ascertain which species is responding, and with what type of call it responds. A short trill is perhaps insufficient to identify the species with certainty, but short grunts *roh, roh* are the signature tune of *B. leucostictus*, whereas a long guttural trill is that of *B. poensis*.

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Appendix. Gazetteer of some localities cited.
Annexe. Coordonnées de certaines localités citées.

Atewa Range, Ghana	06°14'N	00°34'W	Nouabalé-Ndoki NP, Congo	02°20'N	16°30'E
Bakossi Mts, Cameroon	05°00'N	09°40'E	Nyungwe Forest, Rwanda	02°26'S	29°10'E
Boumba-Bek, Cameroon	02°40'N	15°00'E	Oban Hills, Nigeria	05°35'N	08°20'E
Goumina, Mayombe of Congo	04°08'S	12°07'E	Odzala NP, Congo	00°30'N	14°45'E
Kyabobo, Ghana	08°25'N	00°36'E	Oku Mt, Cameroon	06°10'N	10°30'E
Lobéké, Cameroon	02°15'N	15°45'E	Yabassi (Yingui), Cameroon	04°30'N	10°20'E
Nki, Cameroon	02°20'N	14°30'E			

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Preliminary survey of Wattled Ibis *Bostrychia carunculata* in Bale Mountains National Park, Ethiopia, with notes on abundance, habitat and threats

John Hughes

Inventaire préliminaire de l'Ibis caronculé *Bostrychia carunculata* dans le Parc National des Monts Bale, Ethiopie, avec notes sur l'abondance, le milieu et les menaces pesant sur l'espèce. Un inventaire préliminaire de l'Ibis caronculé *Bostrychia carunculata* a été réalisé dans la partie nord-est du Parc National des Monts Bale, Ethiopie, en janvier 2005. Pendant environ 100 heures d'observations sur le terrain, utilisant des transects et des comptages par point dans une zone de 27 km², au moins 246 ibis ont été notés. La densité d'Ibis caronculés était de 10 individus par km² et des groupes de 22–93 oiseaux ont été observés sur cinq sites. Dans la zone d'étude les Ibises caronculés dorment dans des arbres et évitent les cultures de céréales. Les problèmes du surpâturage et la coupe d'arbres, notés antérieurement, sont toujours présents, tandis que des nouvelles menaces potentielles comprennent l'érosion des sols, le défrichement pour l'agriculture et l'exploitation d'eau.

Summary. The results of a preliminary survey of Wattled Ibis *Bostrychia carunculata*, conducted in the north-eastern part of Bale Mountains National Park, Ethiopia, in January 2005, are reported. During c.100 hours of field work, using line transects and point counts in an area of 27 km², at least 246 ibises were recorded. Wattled Ibises occurred at a density of 10 individuals per km² and at five sites groups of 22–93 birds were observed. In the study area Wattled Ibises roosted in trees and avoided cereal farmland. Previously recorded threats of over-grazing and tree-cutting still exist, whilst potential new threats include soil erosion, conversion to agriculture and extraction of ground water.

Wattled Ibis *Bostrychia carunculata* is endemic to Ethiopia, where it is locally common in the highlands at c.1,500–4,100 m (Brown *et al.* 1982, Matheu & del Hoyo 1992). No precise quantitative details are available; Birdlife International (2004) estimates the population at 10,000–25,000 individuals and considers the species as Least Concern. This paper reports on a 14-day survey of Wattled Ibis conducted in Bale Mountains National Park, c.400 km south of Addis Ababa, during a visit to Ethiopia from 13 January to 2 February 2005. Additional observations were made on the journey from Addis Ababa to and from the study area. My aim is to make a modest contribution to a more precise estimate of the species' population, its habitat preferences and threats to its survival. The survey was designed to be repeatable as a whole or in parts, and to facilitate comparison of populations between years and sites.

Study area and methods

The survey was conducted in the north-east corner of Bale Mountains National Park (06°30'N 39°55'E). The Bale Mountains have been identified as a biodiversity hotspot by Conservation International (Mittermeier *et al.* 2004) and the park is an Important Bird Area (EWNHS 2001). Five 10×10 km squares along the Didola–Delo Mena road and one 10×10 km square within the park were selected as the study area (Fig. 1). Half of the survey was conducted inside the park and the other half around the outer perimeter.

Equipment consisted of a Garmin Global Positioning System (GPS) receiver model 12 No 36155001, 8×42 binoculars and the Bale Mountains Trekking map 1/200,000 Digital Impressions Plc. It should be noted that the northings grid lines are labelled incorrectly on this map. The survey area is covered in more detail by the 1/50,000 topographical mapping series ETH 4 (DOS 450) Sheets 0739 D4 and 0740 C3

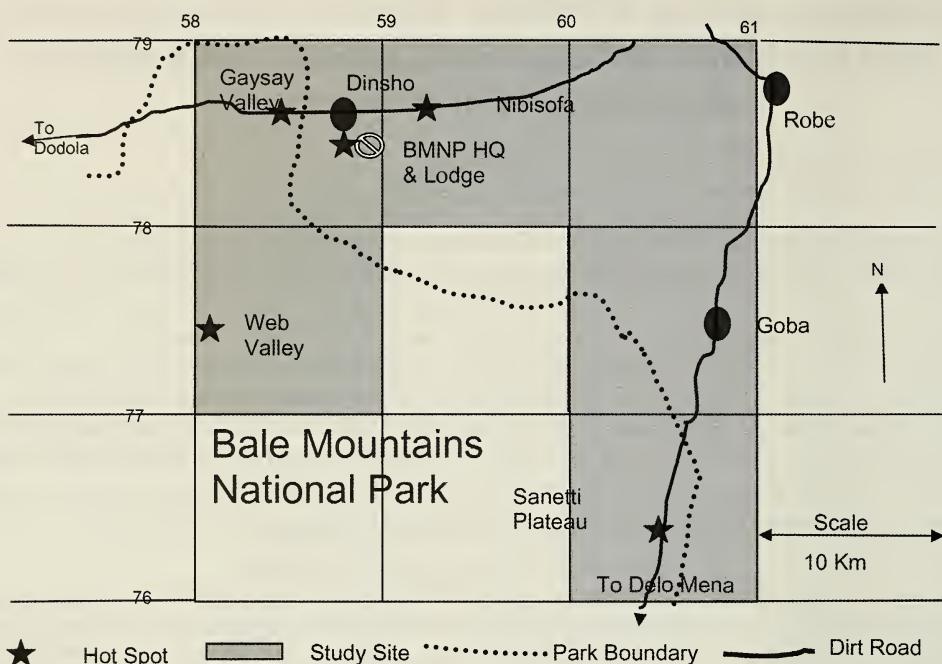


Figure 1. Study area and key sites. The study area is 400 km south of Addis Ababa in the Ethiopian Highlands along the dirt road linking Dodola and Delo Mena. It comprises six 10×10 km squares and includes the towns of Goba, Robe and Dinsho. The five sites marked with a star each held 22–93 Wattled Ibises *Bostrychia carunculata*. The dotted line marks the boundary of the national park.

Zone d'étude et sites principaux. La zone d'étude est située à 400 km au sud d'Addis Ababa sur les hautes terres éthiopiennes le long de la piste reliant Dodola à Delo Mena. Elle consiste en six carrés de 10×10 km et comprend les villes de Goba, Robe et Dinsho. Les cinq sites marqués d'une étoile contenaient chacun 22–93 Ibises caronculés *Bostrychia carunculata*. La ligne interrompue marque la limite du parc national.

Edition 1 SMGI/DOS 1976. All GPS observations and map references refer to UTM grid zone 37 and to the Adindan Datum. Before the survey commenced the GPS was set to the Adindan datum and GPS coordinates were compared with the map grid reference to confirm compatibility.

Survey methods The survey was undertaken using modified line transects (traversed either on foot, horseback or by four-wheel-drive vehicle) and point counts (Bibby 1992). Eight line transects, varying in length between 6 and 30 km with a width of 100 m either side, were surveyed by two observers (Table 1). Transects were surveyed on average four times (range 1–8). The total length of transects was 116 km and the area surveyed 23.2 km \approx . The survey effort split between two observers amounted to 57.4 hours. In addition,

line transects were carried out by a single observer on foot amounting to 15.5 hours. Only Wattled Ibises were counted. The birds surveyed were usually seen feeding on the ground in flocks (Fig. 2). Ibis flying across the transect line were not recorded. Shortage of time and the rapid movement of the vehicle prevented close scrutiny, so immatures were included in the survey. Small ibises with flesh-coloured legs and without wattles were assumed to be juveniles/immature. To maximise the encounter rate, the more detailed transect survey on horseback, conducted at the end of the study period, avoided agricultural land and kept to valley bottoms where sightings of ibises were more likely.

Point counts were undertaken at five locations. At three of these, counts were made only once, for periods of 30–60 minutes. The remaining two, in

Table 1. Summary of line transects.**Tableau 1.** Aperçu des transects.

Line transect	Length (in km)	Area (ha)	Number of times transect surveyed	Total obs time (hrs)	Total number of ibis seen on all surveys	Minimum number of ibis along transect	Habitat type	Sightings per hour of observation	Ibis per km sq
1	6	120	2	2	0	0	G1	0	0
2	13	260	8	8	0	0	H1	0	0
3	30	600	6	12	158	58	H1 & G1	13.2	9.7
4	7	140	3	3	74	30	G1	24.6	21.4
5	25	500	4	8	49	22	H1&G1	6.1	5.5
6	8	160	1	4	31	31	G1	7.8	19.4
7	12	240	6	28.4	324	93	G1	11.4	38.8
8	15	300	2	7.5	13	7	G1	1.7	2.3
Totals	116	2,320	mean 4	72.9	649	241	8.9	10.4	

Robe and at the park headquarters, were at camp locations, where it was convenient to make counts at dawn and at dusk. Despite the point count location in Robe being in the middle of town, ibises were recorded flying to and from roosts. The location at the park headquarters was surrounded by *Hagenia* and juniper trees and ibises roosting in these trees were recorded on most mornings and evenings. To avoid duplication, birds at roosts were not included in the population estimate. The area surveyed by point counts was 4.05 km² and the survey effort was 28 hours.

Although the survey was conducted in the dry season, it did rain, but this did not significantly reduce visibility, which was generally good. The wind was moderate. Survey work was undertaken in daylight, except at the roosts.

Habitat Each time a Wattled Ibis was sighted, the habitat in which it occurred was noted following the classification of Urban & Brown (1971), with two habitat types (H1 and H2) added to take into account characteristics in the Robe area. The following habitats were encountered during the survey:

- M2 Giant Lobelia-*Alchemilla*-tussock grass moorland, 3,800–4,100 m
- F1/ F3 *Hagenia* forest and Juniper-*Podocarpus* forest, 2,400–3,200 m
- G1 Highland grassland, 1,800–2,750 m (reaching 3,400 m in the Web Valley)
- D4 Cliffs and gorges, mainly bare rock
- A5 Highland streams and marshes
- H1 Cereal-based agriculture
- H2 Town and urban areas

Threats A checklist produced by the Ethiopian Wildlife and Natural History Society (1996) to classify existing and potential threats to birds as critical, major or low, was used in the survey. Threats were identified by personal observations and through discussions with local authorities.

Results

Wattled Ibis proved easy to identify whilst travelling in a vehicle, as the species is large with a distinctive profile and diagnostic white wing-patch, and prefers open areas. It is only likely to be confused with the Hadada Ibis *Bostrychia hagedash*,

Table 2. Summary of point counts.
Tableau 2. Aperçu des comptages par point.

Point	Area (ha)	Obs time (hrs)	Number of sightings	Min. number of ibis feeding	Habitat type	Sightings per hour	Ibis per km sq
1	100	0.5	0	0	G1	0	0
2	100	0.5	5	5 feeding	H1	10	5
3	100	20.0	8	0	H2	0.4	0
4	10	6.0	37	14 roosting	F1/F3	6.2	140
5	100	1.0	0	0	G1, D4 & A5	0	0
Totals	405	28	49	5	1.8	n/a	

Table 3. Size of feeding flocks of Wattled Ibis *Bostrychia carunculata* in the Bale Mountain area.**Tableau 3.** Taille des groupes d'Ibis caronculés *Bostrychia carunculata* à la recherche de nourriture dans la zone des Monts Bale.

Flock size	Single ibis	2 birds	3–9 birds	10–19 birds	20+ birds
Number of flocks	6	12	34	5	15

but this species is uncommon and none was found in the study area. The call is a far-carrying honking, uttered for 4–5 seconds on take-off. Most birds seen had wattles of c.5 cm in length with a diameter of c.0.5 cm.

Wattled Ibises were recorded on 82 occasions and a total of 698 birds was observed (Tables 1–2). The minimum count (based on line transects and point counts) was 246 adult and immature Wattled Ibises. Most sightings were of birds feeding in small or larger flocks (Table 3).

Local abundance The area surveyed totalled 27.25 km \approx or 4.5% of the study area. In the study area Wattled Ibises were found at a density of 10 birds per km \approx . Five key sites, each containing 22–93

ibises, were identified (Table 4). All lay close to the road and were relatively easy to access. As line transects and point count locations were chosen opportunistically, the selection was not sufficiently rigorous to permit a statistical analysis of the data. The survey was conducted in a very small geographical area (600 km \approx) and is thus not representative of the Bale region or the total range of the species. GPS coordinates for the point count locations and the line transects (enabling repeat surveys) are available from the author.

General habitat Wattled Ibises were most often seen feeding in flocks of 3–9 or 20+ birds (Table 3). They fed on agricultural land that had been left fallow for 1–2 years, in areas of short damp grass (G1) and in highland vegetation including rough tussock grass (M2). They were frequently seen close to villages and towns. In Addis Ababa, they were seen feeding in the company of the locally more common Sacred Ibis *Threskiornis aethiopicus*. Along the Dodola–Dinsho road they were seen feeding with Warthogs *Phacochoerus aethiopicus*. None was seen feeding in stubble, cornfields or freshly ploughed fields (H1) or in the extensive wheat fields surrounding the town of Robe. The birds appear to prefer level ground; only once were they seen feeding on a slope. Only on rare occasions were individuals observed near trees, except when roosting. They were not recorded in scrub, woodland or forest (F1/F3), or in water. They flew to their tree roosts at 17.00–18.30 hrs and departed at 06.30 hrs (Table 5), and appeared to roost in pairs. No nests were found and no courtship displays observed. The species was more abundant within the National Park, but this is more likely due to the fact that there are few cultivated areas inside the park, rather than it offering any protection.

Threats In general Wattled Ibises are not persecuted. The Oromo people who inhabit the Bale area

Table 4. Wattled Ibis *Bostrychia carunculata* key sites.**Tableau 4.** Sites importants de l'Ibis caronculé *Bostrychia carunculata*.

Site	Grid coordinates	Flock size	Park boundary
Sennetti Plateau	06°53'N 39°54'E	22	Inside
Nibisofa	07°06'N 39°50'E	58	Outside
Web Valley	07°01'N 39°44'E	93	Inside
Gaysay Valley	07°07'N 39°47'E	30	Inside
Disho Lodge roost	07°06'N 39°48'E	14	Inside

Table 5 Wattled Ibis *Bostrychia carunculata* roosting in trees.**Tableau 5.** Ibis caronculés *Bostrychia carunculata* au dortoir.

Date and Location	Departing roost	Time	Roosting
24 January, Dinho Lodge	18.00 hrs	3	
26 January, Dinho Lodge	06.30 hrs	14	
26 January, Dinho Lodge	17.15 hrs	3	
26 January, Dinho Lodge	18.00 hrs	4	
27 January, Dinho Lodge	06.30 hrs	6	
27 January, Dinho Lodge	09.30 hrs	2	
31 January, Nibisofa	09.10 hrs	8	
Totals	30	10	



Figure 2. Feeding flock of Wattled Ibises *Bostrychia carunculata* (Catherine Hughes)
Groupe d'Ibis caronculés *Bostrychia carunculata* à la recherche de nourriture (Catherine Hughes)

live in harmony with the birds. In the study area two threats could be classified as major: overgrazing and tree-cutting. Potential threats may come from soil erosion, conversion to agriculture (farmers from the north of the country have been relocated to this area) and extraction of ground water (small-scale extraction and irrigation has started and there are plans to expand the process).

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Distribution and population size of Chapin's Flycatcher *Muscicapa lendu* in Kakamega Forest, Kenya

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Distribution et taille de la population du Gobemouche de Chapin *Muscicapa lendu* dans la forêt de Kakamega, Kenya. Le Gobemouche de Chapin *Muscicapa lendu*, classé comme Vulnérable par BirdLife International (2000, 2004), est parmi les espèces les plus menacées au Kenya, vu le peu de forêt ombrophile encore présente. De novembre 2002 à février 2003, nous avons étudié sa distribution et la taille de sa population dans la forêt de Kakamega, Kenya. L'espèce a été recherchée le long de 125 transects de 500×40 m dans cinq lambeaux de forêt. Dix-sept oiseaux (13 individus solitaires et deux couples) ont été vus dans trois fragments: Isecheno, Ikuuya et Buyangu. Nous n'en n'avons pas trouvé dans la Réserve Naturelle de Yala ni dans la Réserve Nationale de Kisere. La densité de la population a été estimée à environ un individu pour 20 ha, et la population entière à environ 200 individus. Les gobemouches ont été observés à des hauteurs de 12–22 m, principalement sur des branches sans feuilles, dans une zone de grands arbres (hauteur moyenne 27 m), avec une couverture de voûte de 32%. La diminution et la fragmentation du milieu forestier sont sans doute responsables du petit nombre d'oiseaux recensés. Le degré d'isolement des fragments forestiers pourrait conduire à des accidents génétiques ou démographiques. Nous suggérons que les fragments actuels doivent être mieux protégés et qu'il serait très utile de planter des corridors pour connecter ces fragments, avec bien sûr des essences indigènes. Il est recommandé de continuer à étudier l'écologie de l'espèce afin de prendre les mesures de conservation appropriées.

Summary. Among the most threatened species of Kenya's remaining rainforest is Chapin's Flycatcher *Muscicapa lendu*, a species currently listed as Vulnerable by BirdLife International (2000, 2004). Between November 2002 and February 2003, we studied its distribution and population status in Kakamega Forest, Kenya. The species was searched for along 125 transects of 500×40 m in five forest fragments. Seventeen birds (13 singles and two pairs) were sighted in three fragments, Isecheno, Ikuuya and Buyangu, but we failed to find it in Yala Nature Reserve and Kisere National Reserve. Population density was estimated at c.1 bird per 20 ha, and the overall population estimated at c.200 birds. Flycatchers were recorded perching at 12–22 m, mostly on bare branches of tall indigenous trees with mean canopy height of 27 m and mean canopy cover of 32%. Habitat loss, particularly through forest fragmentation, is possibly the main cause of the small population size. That forest fragments are distant from each other could make the species vulnerable to genetic or demographic disasters. We recommend improved forest management practises to ensure retention of tall indigenous trees, and connecting forest patches via corridors of planted indigenous trees. Further studies are required in order to understand this species' ecology and formulate appropriate conservation measures.

Chapin's Flycatcher *Muscicapa lendu* is a scarce and globally threatened (Vulnerable), range-restricted species (BirdLife International 2000, 2004), known only from the Itombwe Mountains and Lendu Plateau in eastern Democratic Republic of Congo, Bwindi Impenetrable National Park in Uganda, and Kakamega and North Nandi Forests in western Kenya, with an unconfirmed sight record from Nyungwe Forest, Rwanda (BirdLife International 2000, 2004).

Kakamega Forest is an Important Bird Area (IBA) of 18,300 ha and the only true tropical lowland rainforest in Kenya, which was formerly part of a contiguous forest ecosystem that included the Nandi-Tinderet block and stretched as far as West Africa (Blackett 1994).

Chapin's Flycatcher appears to be rare throughout its range and intensive pressure on its habitat implies that its small population is probably declining (BirdLife International 2000, 2004).

Little is known concerning the current status of the species, and no adequate ecological data on which to base effective conservation measures are available.

Between November 2002 and February 2003, we undertook a study of Chapin's Flycatcher in Kakamega Forest to (1) determine its distribution within the forest fragments, (2) estimate its population density, and (3) investigate its preferred vegetation characteristics. Such data should serve as a base for future ecological studies and conservation programmes.

Study area

Kakamega Forest ($00^{\circ}10' - 00^{\circ}21'N$ $34^{\circ}47' - 34^{\circ}58'E$) lies at 1,500–1,700 m altitude. Mean annual rainfall is 2,000 mm and temperature 10.6–27.7°C (Blackett 1994; for a detailed description see Kokwaro 1988).

The human population in the forest's environs is rapidly increasing and its activities have fragmented the once-contiguous forest into several patches that are decreasing in extent. These forest fragments include Isecheno (310 ha) and Yala nature reserves (1,000 ha), Ikuywa River Forest (1,450 ha), Kakamega National Reserve (4,457 ha, comprising Buyangu and Kisere fragments), Malava East (75 ha) and Malava West (25 ha) (Fig. 1). The IBA, although suffering from ongoing degradation, fragmentation and destruction, still provides suitable habitat for Chapin's Flycatcher, the equally globally threatened Turner's Eremomela *Eremomela turneri* and 194 forest-dependent bird species (BirdLife International 2000). Hartlaub's Turaco *Tauraco hartlaubi* and Fine-banded Woodpecker *Campetherina tullbergi* have disappeared since the forest became disconnected from North Nandi Forest IBA, and Yellow-mantled Weaver *Ploceus tricolor* has not been recorded for many years (Bennun & Njoroge 2001).

Our study concentrated on the forested areas of Isecheno, Ikuywa (including Lirhanda Hill), Yala Nature Reserve and Kakamega National Reserve (Buyangu and Kisere). Surveys were not conducted in Malava East and Malava West due to logistical difficulties and because they mainly consist of exotic tree plantations.

Methods

In November 2002, we conducted a three-week reconnaissance visit to all five study sites. The visit was used mainly to familiarise ourselves with Chapin's Flycatcher's identification features, vocalisations, behaviour and general habitat choice. Local bird guides were interviewed and searches for the birds were conducted. We also tested the effectiveness of playback of Red-chested Owl *Glaucidium tephronotum* calls for attracting our study species.

The main field work was undertaken from 17 January to 25 February 2003 (40 days) in Isecheno, Ikuywa, and Buyangu forest fragments, where Chapin's Flycatcher were sighted during the reconnaissance. Birds were searched for along existing trails, which were used as transect routes. In total, 125 transects of 500 m length and 40 m width were sampled during mornings (07.00–11.00 hrs) and evenings (16.00–17.00 hrs) by three observers using binoculars at a speed of c.300 m/h. Red-chested Owl calls were played

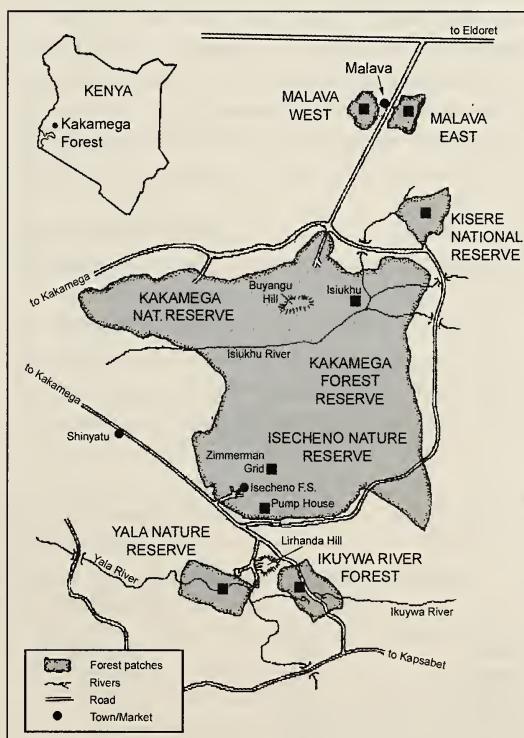


Figure 1. Map of the study area.

Carte de la zone d'étude.

for two minutes at the start and end of each transect.

Only positively identified Chapin's Flycatchers were noted and their perch height estimated. Perch position was recorded as: bare branch, inside canopy or edge of canopy. Behaviour was recorded as flying or perching quietly. Canopy height and percentage of canopy cover within a 20-m radius were noted. Similar habitat data from random points in the same study fragments are available (Gibbon 1991, Oyugi 1998, Brooks *et al.* 1999) and we tested for differences in habitat structure between the random points and those where Chapin's Flycatcher was detected. The population density of flycatchers in each fragment was estimated by dividing the number of birds seen by the total area sampled by the transects.

Results

Chapin's Flycatcher was recorded in three of the five surveyed forest fragments (Table 1, Fig. 1). In Isecheno birds were sighted within the 'Zimmerman grid' and surrounding forest, including the Pump House trail; and in Ikuywa, at Ikuywa River bridge and upstream. One bird was recorded in forest around Lirhanda Hill during the reconnaissance but not subsequently. In Buyangu, the species was found along the Isiukhu River and in a forest patch behind the viewpoint at Buyangu Hill. In total, 17 individuals, comprising 13 singles and two pairs, were recorded. We estimated population density at 0.05 birds/ha (one bird per 20 ha).

Chapin's Flycatcher appears to prefer tall indigenous tree species. Eleven of the 15 sightings were made in the mid and upper canopy of primary forest, especially in tall indigenous trees such

as *Antiaris toxicaria*, *Celtis africana*, *Albizia gum-mifera*, *Olea capensis*, *Cordia abyssinica* and *Fagara* spp. The remaining four encounters were in secondary forest dominated by *Maesopsis eminii* trees. Chapin's Flycatchers did not react to playback of Red-crested Owl calls.

Birds were more often ($n=13$) observed perching quietly on bare branches within the canopy than on foliage or at canopy edges. Perch height was 12–22 m (mean 17 m) on trees with a mean height of 27 m and mean canopy cover of 32% ($n=15$). Canopy height and canopy cover at points where birds were observed differed significantly (Analysis of Variance (ANOVA), $df=28$, $F=17.4$, $P<0.001$ and $df=28$, $F=12.9$, $P=0.001$ respectively) from those of the random points.

Discussion

Our results confirm that Chapin's Flycatcher is a scarce resident in Kakamega Forest (Zimmerman *et al.* 1996). It is easily overlooked due to its inconspicuous plumage and behaviour, and this may have affected population density estimates. For instance, it can be reasonably assumed that most individuals that we observed as isolated individuals were, in fact, paired. It differs from African Dusky Flycatcher *Muscicapa adusta*, by being slightly larger with yellow gape corners, is less vocal and is a forest-interior species unlikely to occur in highly disturbed forest or near habitation (Zimmerman *et al.* 1996, Urban *et al.* 1997).

Local distribution

During the present study, Chapin's Flycatcher was found in the same forest fragments (Isecheno, Ikuywa and Buyangu) where previously recorded (Brooks *et al.* 1999), suggesting that its distribu-

Table 1. Estimated % area of suitable Chapin's Flycatcher *Muscicapa lenu* (CF) habitat and number of birds detected at the study sites.

Tableau 1. Estimation du pourcentage de la zone convenant au Gobemouche de Chapin *Muscicapa lenu* (CF) et nombre d'oiseaux détectés dans les sites étudiés.

Forest fragment	Size (ha)	% suitable habitat	Number of transects	Transects with CF	CF counted
Isecheno	310	70	37	9	10
Ikuywa	1,450	60	39	3	4
Buyangu	4,000	50	31	3	3
Yala	1,000	60	12	0	0
Kisere	457	80	6	0	0
Totals	7,217	60	125	15	17

tion within Kakamega has changed little. In Isecheno, one individual was seen in 1997 (Brooks *et al.* 1999), and ten during the present study. The presence and strict surveillance of forest guards has protected a near-pristine indigenous and presumably suitable habitat. In Ikuywa, a breeding record was reported by Stevenson (1991), an indication that suitable habitat formerly existed. However, over the years this forest has been heavily logged and currently the interior is open with only scattered trees. Nevertheless, we still found four flycatchers here. In Buyangu, one individual was sighted in December 1996 (Brooks *et al.* 1999) and we observed three. Numbers in this fragment may increase in future because of forest regeneration, facilitated by constant surveillance by Kenya Wildlife Service rangers (Mutangah *et al.* 1992, Oyugi 1996).

There are no historical records in the Yala and Kisere fragments and we did not find the species there. Although Yala has a high closed canopy and healthy tree population structure (Oyugi 1996), its 20-year isolation (1972–2002) has probably hindered recolonisation from the nearest forest patches (Ikuywa and Isecheno). However, Brooks *et al.* (1999) suggested that the flycatcher's montane affinities may properly explain the lack of records from this lower altitude fragment. The closed canopy of indigenous trees at Kisere (Oyugi 1998) may constitute suitable habitat for Chapin's Flycatcher and a local guide reported having seen one. We may have missed the species as surveys were conducted in this fragment on just one day for three hours and therefore future surveys should try to establish its presence or absence.

Five specimens taken in Kakamega Forest have been traced in two museums, the National Museums of Kenya, Nairobi (one collected in 1963), and the United States National Museum, Washington DC (four collected in 1965), but the fragments where they were taken are not specified (Brooks *et al.* 1999).

Population status

BirdLife International (2000, 2004) estimated the global population of Chapin's Flycatcher at 2,500–10,000 individuals and declining. Table 1 presents estimates of the area of potentially suitable habitat for Chapin's Flycatcher (tall indige-

nous trees) in Kakamega Forest, based on our field observations and existing publications (Kokwaro 1988, Blackett 1994, Oyugi 1996, 1998, Bennun & Njoroge 1999, Brooks *et al.* 1999). Assuming that the species is restricted to such habitat, only 60% of the indigenous forest, i.e. 4,330 ha, would be suitable for it. Extrapolating our population density estimate to this area gives a very crude population estimate of c.200 birds. Although this may be a significant underestimate (see comment above concerning the likelihood that most individuals that we recorded were paired), due to the species' unobtrusiveness, its population must still be small and threatened. The species' scarcity can be attributed to intense human activities, mainly logging, charcoal production, firewood collection, encroachment and overgrazing by cattle, which have continued to fragment the once-contiguous forest ecosystem. Fragmentation of Chapin's Flycatcher population in distant forest patches makes the species prone to local extinctions due to its greater vulnerability to demographic and environmental variation, and loss of genetic variability (Gaston 1994, Newmark 1999, Rodrigues & Gaston 2002). Chapin's Flycatcher may therefore be unable to persist long term in these forest fragments, and may eventually be extirpated unless conservation action to prevent further destruction of its habitat is taken.

Recommendations

Our findings indicate that Chapin's Flycatcher is rare and its population small and probably declining. To ensure maintenance of a viable population we recommend the following:

Improvement of forest management practises to reduce the loss of indigenous vegetation.

Connecting all existing fragments of Kakamega Forest via corridors of planted indigenous tree species, to enhance avian dispersal between forest patches and reduce the possibility of local extinctions.

Conducting additional ecological studies of breeding and population dynamics, territory size and territoriality, and dispersal.

Development of continuous monitoring of the species in the region, by members of the Site Support Groups (SSG; linked to the IBA conservation programme of Nature Kenya).

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Observations hivernales notables d'oiseaux en Tunisie

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Notable winter records of birds in Tunisia. The most interesting records made during five winter visits to Tunisia in the period 1992–2005 are presented, augmented by unpublished observations from other observers. Records include those of accidental winter visitors such as European Nightjar *Caprimulgus europaeus* (second winter record), Common Swift *Apus apus* (second and third records), Northern Wheatear *Oenanthe o. seebohmi* (fourth record) and Western Bonelli's Warbler *Phylloscopus bonelli*. A few important concentrations are also mentioned.

Résumé. Les auteurs rapportent les observations les plus remarquables effectuées à l'occasion de cinq excursions hivernales en Tunisie sur la période 1992–2005, complétées par des données non publiées d'autres observateurs. Ces observations comprennent, entre autres, des espèces accidentelles en hiver tels que l'Engoulevent d'Europe *Caprimulgus europaeus* (seconde donnée hivernale), le Martinet noir *Apus apus* (deuxième et troisième données), le Traquet motteux *Oenanthe o. seebohmi* (quatrième donnée) et le Pouillot de Bonelli *Phylloscopus bonelli*. D'importants rassemblements sont également signalés.

La publication récente d'une avifaune de Tunisie par Isenmann et al. (2005) permet enfin d'avoir une référence synthétique et complète de l'ornithologie pour ce pays. Ici nous rapportons des observations remarquables non incluses dans cet ouvrage, effectuées pendant cinq voyages ornithologiques: 20 février–1 mars 1992 (M. Grussu), 26 novembre–9 décembre 2002 (M. Grussu, R. Rossi et P. Ruzzante), 1–10 décembre 2003 (M. Grussu, H. Dlensi), 2–9 janvier 2004 (G. Conca et H. Dlensi) et 17–24 janvier 2005 (A. Corso, C. Cardelli, O. Janni et L. Maumary). Les principales zones visitées furent la région méridionale à la limite de l'Erg (Gafsa-Tozeur-Douz–Bir Soltane / Ksar Ghilane), la partie centrale du pays près de Kairouan et la côte du Golfe de Gabès. Nous mentionnons également des observations inédites et crédibles par d'autres ornithologues.

Les données sont présentées comme suit: localité, effectif (si non précisé: se réfère à un individu), âge et sexe si connus, date(s) d'observation, observateur(s) si autre(s) que les auteurs. Les noms de localités sont ceux utilisés sur la carte Michelin no. 956.

Résultats

Pélican blanc *Pelecanus onocrotalus*

Embouchure de l'Oued Akarit, Golfe de Gabès, subadulte, 8 janvier 2004; Ile Boussila, Kneiss,

subadulte (le même individu?), 20 février 2004. L'individu de l'Oued Akarit a aussi été observé le 9 janvier (Dlensi en Isenmann et al. 2005). Il existe une dizaine d'observations antérieures.

Grand Cormoran *Phalacrocorax carbo*

Environs de Metlaoui, subadulte en vol en direction des monts de Selja, 29 février 1992. L'espèce est devenue abondante dans les zones humides côtières et les lacs intérieurs, mais demeure rare dans la région des oasis sahariennes où il n'existe que trois autres données (Isenmann et al. 2005).

Crabier chevelu *Ardeola ralloides*

Environs de Kairouan, 1 mars 1992; barrage d'El Haouareb, Kairouan, deux individus, 7 décembre 2003. Peu de mentions hivernales, la plupart concernant des individus solitaires dans le nord du pays (Isenmann et al. 2005) et deux individus le 19 janvier 2003 (Azafzaf & Feltrup-Azafzaf 2003).

Cigogne blanche *Ciconia ciconia*

A l'est de Kairouan, 13 individus, 28 décembre 1990 (R. Mascara, E. Giudice); environs de Enfida, 31 octobre, 12 novembre (H. Azafzaf) et 28 novembre 2002; Parc national de Bou Hedma, sept, 8 décembre 2003; piste entre Bir Soltane et Béni Kheddache, 21 janvier 2005. L'espèce hiverne de façon occasionnelle en Tunisie (Isenmann et al. 2005).

Fuligule nyroca *Aythya nyroca*

Barrage d'El Haouareb, Kairouan, environ 400 individus, 7 décembre 2003. Des groupes hivernants aussi importants n'ont jamais été signalés auparavant; ces dernières années la population hivernante était de 30–70 individus, avec un maximum de 200 (Isenmann *et al.* 2005).

Erismature à tête blanche *Oxyura leucocephala*

Barrage d'El Haouareb, Kairouan, environ 260 individus, 7 décembre 2003. L'espèce est sédentaire en Tunisie, mais des groupes d'une telle importance ont rarement été notés ces dernières années, le plus grand comptant 352 individus (Isenmann *et al.* 2005).

Milan noir *Milvus migrans*

Barrage d'El Haouareb, Kairouan, 7 décembre 2003 et 3 janvier 2004; route P1 quelques kilomètres au nord de Gabès, trois individus, 7 janvier 2004. Isenmann *et al.* (2005) cite neuf contacts concernant 1–2 individus entre octobre et janvier, dont seuls quatre en décembre-janvier.

Busard cendré *Circus pygargus*

Pont d'El Kantara/Ile de Jerba, individu mélaniqe, 5 décembre 2002. Une des quatre observations hivernales mentionnées par Isenmann *et al.* (2005), qui omettent de signaler qu'il s'agissait probablement de la première mention d'un individu au plumage mélaniqe.

Aigle botté *Hieraaetus pennatus*

Barrage d'El Haouareb, Kairouan, individu de forme sombre, 7 décembre 2003; salines de Thyna/Sfax, individu immature de forme claire, 22 janvier 2005. Il s'agit des seules données récentes d'oiseaux hivernant en Tunisie. Isenmann *et al.* (2005) n'indiquent que cinq observations hivernales, la plus récente datant de 1978. Nos observations sont probablement à relier à l'influx sans précédent d'Aigle botté dans l'ouest de la Méditerranée d'octobre 2004 à mars 2005 (Baghino & Premuda 2005, Guillotson *et al.* sous presse).

Grue cendrée *Grus grus*

Route P16 au sud de Chebika, 50 individus volant en direction du Chott El Gharsa, 4 janvier 2004. Plusieurs milliers d'individus hivernent régulièrement dans les plaines du nord et du centre (Isenmann *et al.* 2005, H. Azafzaf com. pers.). Notre observation est probablement la

première en bordure du Sahara tunisien, dans une région aussi méridionale du pays.

Pluvier guignard *Charadrius morinellus*

Environs de la route P3 à 28 km au nord de Tozeur, environ 300 individus, 3 janvier 2004. L'espèce hiverne régulièrement en Tunisie, mais rarement en groupes d'une telle taille. Isenmann *et al.* (2005) mentionnent seulement deux observations de groupes plus importants.

Sterne voyageuse *Sterna bengalensis*

Mahdia, un individu, 5 janvier 2005 (V. Cavalieri). Cinquième observation hivernale en Tunisie. Les quatre précédentes ont toutes été effectuées beaucoup plus au sud, dans le secteur du Golfe de Gabès et autour de l'île de Jerba (Isenmann *et al.* 2005).

Sterne pierregarin *Sterna hirundo*

Barrage de l'Oued Rmal, Zaghouan, 27 novembre 2002; salines de Thyna/Sfax, 1–2 individus, 8 décembre 2002. Isenmann *et al.* (2005) donnent sept mentions hivernales (novembre–février) et considèrent la présence de l'espèce comme occasionnelle à cette époque de l'année.

Sterne naine *Sterna albifrons*

Salines de Thyna/Sfax, deux individus, 30 décembre 1991; quelques individus, 30 décembre 1993 (M. Bailo/Ornitours). Il y a moins de dix observations précédentes (Isenmann *et al.* 2005).

Engoulement d'Europe *Caprimulgus europaeus*

Parc national de Bou-Hedma, un individu dans un petit bois d'*Eucalyptus* sp., 8 décembre 2003. Deuxième mention hivernale en Tunisie (Isenmann *et al.* 2005).

Martinet noir *Apus apus*

Sfax, un individu, 6 décembre 2003; Sousse, probablement trois individus, 9 décembre 2003; Sfax, 5–10 individus, 23 janvier 2005. Nous avons été particulièrement attentif à ne pas confondre ces oiseaux avec le Martinet pâle *A. pallidus*, présent de façon (quasi) régulière dans le Golfe de Gabès en hiver. La seule autre mention est celle de deux individus dans le Sebkha El Menzel, 20–21 février 1986 (Isenmann *et al.* 2005).

Martinet des maisons *Apus affinis*

Gorges de Selja, Metlaoui, sept individus, 23 février 1990 (M. Bailo/Ornitours); 4–5 individus, 28 février 1992; 4–5 individus, 1 décembre 2002.

Le statut hivernal en Tunisie n'est pas encore défini de façon claire: l'espèce est donnée comme 'largement sédentaire', mais ceci est soutenu par seulement cinq données hivernales sur la période 1948–95 (Isenmann *et al.* 2005). L'aire d'hivernage en Tunisie indiquée par Snow & Perrins (1998) est trop étendue, étant donné l'absence d'autres mentions récentes. Nos observations dans les gorges de Selja semblent indiquer que l'espèce hiverne régulièrement sur ce site.

Martinet à ventre blanc *Tachymarptis melba*

Un peu au sud de Metlaoui, un individu, 28 février 1992. Donné comme présent de la fin mars (donnée la plus précoce: 11 mars) jusqu'en septembre–octobre, avec une observation le 13 décembre 1943 à Hammam Lif (Isenmann *et al.* 2005). Notre observation pourrait concerner soit un hivernant, soit un migrateur précoce.

Alouette bilophe *Eremophila bilopha*

Piste entre C105 et Bir Soltane, environ 1.000 individus, 21 janvier 2005. Dans le Maghreb, les seules données de regroupement de l'espèce viennent du Maroc, où Thévenot *et al.* (2003) citent la présence régulière de groupes de 5–40 individus en dehors de la période de reproduction et l'observation de deux groupes de 100+ individus.

Traquet motteux *Oenanthe oenanthe*

Chott El Jerid, mâle de la sous-espèce *O. o. seebohmi*, 3 décembre 2003. Cette sous-espèce, qui niche à haute altitude au Maroc et en Algérie, est très rare en Tunisie (seulement huit observations, dont trois en hiver: Isenmann *et al.* 2005).

Pouillot de Bonelli *Phylloscopus bonelli*

Zone inondée près de Kriz, Chott El Jerid, 6–7 individus, 29 février 1992. L'espèce est accidentelle en hiver en Tunisie (Isenmann *et al.* 2005).

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Third report of the Seychelles Bird Records Committee

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Troisième rapport du Comité d'Homologation Seychellois. Le troisième rapport quinquennal du Comité d'Homologation Seychellois, créé en 1992, est présenté ici. Il comprend les données acceptées d'espèces occasionnelles (espèces enregistrées moins d'une fois par an) au 31 décembre 2005. Les changements intervenus depuis 2000 dans le statut des espèces sur la liste seychelloise sont mentionnés. Deux espèces, précédemment considérées comme occasionnelles, ont été reclassées comme annuelles et une autre est maintenant considérée comme annuelle dans les îles du groupe d'Aldabra. Seize espèces occasionnelles ont été ajoutées à la liste des Seychelles depuis la publication du rapport précédent (voir *Bull. ABC* 8: 23–29, 2001). Avec ces changements, le nombre des espèces enregistrées aux Seychelles est passé à 239, dont 65 espèces nicheuses, 27 migrateurs annuels, sept espèces éteintes et 140 occasionnels. Toute espèce non annuelle est citée, avec le nombre de mentions homologuées ainsi que l'île sur laquelle l'observation a été faite et le (ou les) mois. Vingt-deux groupes de données indéterminées dignes d'intérêt sont présentés. Deux sous-espèces occasionnelles sont également reprises. Des détails supplémentaires sont fournis pour les espèces enregistrées pour la première fois depuis la publication du rapport précédent.

Summary. Seychelles Bird Records Committee, formed in 1992, publishes reports at intervals of five years. This report summarises all accepted records of vagrants (species recorded less than annually) to 31 December 2005. Changes in status of species on the Seychelles list since 2000 are noted. Two species previously classed as vagrants have been reclassified as annual and one other is now considered as annual in the Aldabra group. Sixteen vagrant species have been added to the Seychelles list since publication of the previous report. Including these changes the number of species recorded in Seychelles at 31 December 2005 is 239. All species of less than annual occurrence are listed giving the number of accepted records plus islands and months recorded. Twenty-two groups of indeterminate records worthy of note are given. Two vagrant subspecies are also listed. Full details of species recorded for the first time since publication of the previous report are given.

Seychelles Bird Records Committee (SBRC) was formed in 1992. The committee decided to publish its reports in an international journal at intervals of five years, with the first report in 1996 (Skerrett & Seychelles Bird Records Committee 1996) and the second in 2001 (Skerrett & Seychelles Bird Records Committee 2001). The current committee members are Michael Betts, Ian Bullock, David Fisher, Ron Gerlach, Rob Lucking, John Phillips, Bob Scott and Adrian Skerrett, with consultants Phil Chantler (swifts), Dick Forsman (raptors), John Marchant (waders), Tony Palliser (seabirds) and Robert Prŷs-Jones (museums).

A summary of notable sightings received by SBRC is published every six months in the Recent Reports section of *Bull. ABC* whilst accepted records are listed in *Birdwatch* magazine (the quarterly journal of the Nature Protection Trust of

Seychelles). This third report includes all records of vagrants (species of less than annual occurrence) accepted up to 31 December 2005.

The status of some species has been reviewed since the second SBRC report as follows: (1) Barn Swallow *Hirundo rustica* and Tree Pipit *Anthus trivialis*, previously treated as vagrants, are now considered annual migrants throughout Seychelles. SBRC continues to collect reports of sightings, but does not ordinarily request supporting documentation. (2) Broad-billed Roller *Eurystomus glaucurus*, previously classified as a vagrant, is considered annual in the Aldabra group. It is still considered a vagrant east of the Aldabra group. (3) Sixteen species have been added to the Seychelles list, namely: Kermadec Petrel *Pterodroma neglecta*, Matsudaira's Storm-petrel *Oceanodroma matsudaireae*, Squacco Heron *Ardeola ralloides*, Glossy Ibis *Plegadis falcinellus*,

Pallid Harrier *Circus macrourus*, Saker Falcon *Falco cherrug*, Little Crake *Porzana parva*, Stone-curlew *Burhinus oedicnemus*, Madagascar Pratincole *Glareola ocularis*, Sociable Lapwing *Vanellus gregarius*, Spotted Redshank *Tringa erythropus*, White-cheeked Tern *Sterna repressa*, Grey-headed Kingfisher *Halcyon leucocephala*, Bimaculated Lark *Melanocorypha bimaculata*, Pied Wheatear *Oenanthe pleschanka* and Chiffchaff *Phylloscopus collybita*. (4) The number of species recorded in Seychelles in the second report was given as 224, if Abbott's Sunbird *Nectarinia (sovimanga) abbotti* was regarded as a species, something that was in doubt at the time. Subsequent examination of mitochondrial DNA does not support this (Warren *et al.* 2003). Therefore, treating Abbott's Sunbird as only a race of Souimanga Sunbird, and adding new records, the number of species recorded in Seychelles as of 31 December 2005 is 239. This comprises 65 breeding species, 27 annual migrants, seven extinct species and 140 vagrants.

The following list details accepted records for all 140 vagrants, plus Broad-billed Roller records east of the Aldabra group and two vagrant subspecies. Twenty-two groups of noteworthy records where the species involved was undetermined are also listed. Records of breeding species outside their normal range are listed for the first time (nine records). For each species, number of accepted records, island or atoll (in chronological order of accepted records) and month(s) of occurrence are given. Details are given for records of the 16 new species recorded since the second report of SBRC.

Southern Giant Petrel *Macronectes giganteus*
One record: Récifs, Mahé; July–October.

Pintado Petrel *Daption capense*
One record: between Cosmoledo and Assumption; September.

Kermadec Petrel *Pterodroma neglecta*
One record: one intermediate phase, Cousin, 29 August 2003, and one, presumably same individual, 29 June 2004 (Eikenaar & Skerrett 2006).

Jouanin's Petrel *Bulweria fallax*
Ten records: near Aldabra (4), near Farquhar (2), near Alphonse, near Desnoeufs, near Bird (2); February–April, July, October–December.

Wedge-tailed Shearwater *Puffinus pacificus*
One 'out-of-range' record (south and west of the Amirantes): Aldabra; February.

Flesh-footed Shearwater *Puffinus carneipes*
Four records: between Frégate and Récifs, near Farquhar, between Astove and Desroches, near Desroches; May, October, December.

Wilson's Storm-petrel *Oceanites oceanicus*
Four records: near Bird, near Farquhar, near Desnoeufs, near St François; April, October, November.

White-faced Storm-petrel *Pelagodroma marina*
Three records: south-east of Boudeuse, west-northwest of Desroches, north of Rémire; May.

Swinhoe's Storm-petrel *Oceanodroma monorhis*
Three records: Praslin, between Aldabra and Assumption (2); October, December.

Matsudaira's Storm-petrel *Oceanodroma matsudaireae*
One record: two at sea between Providence and Alphonse, 20–21 August 2000.

Black-necked Grebe *Podiceps nigricollis*
Two records: between Mahé and South-east Island, Platte; December.

Red-billed Tropicbird *Phaethon aethereus*
Five records: Bird (2), Aride (2), Mahé; all months.

Great Cormorant *Phalacrocorax carbo*
One record: off Cousin; January.

Long-tailed Cormorant *Phalacrocorax africanus*
Two records: Aldabra, Hodoul Island/Mahé; January–November.

Great (Eurasian) Bittern *Botaurus stellaris*
Four records: Aride, Praslin, Mahé, Cousine; October–November.

Cinnamon Bittern *Ixobrychus cinnamomeus*
Two records: Frégate, Aride; October, January.

Squacco Heron *Ardeola ralloides*
Two records: one at the Inter-Island Quay, Mahé, 21 September 2002; one at the airstrip and edge of hotel area, Bird, 10–13 October 2002 (Tiatousse *et al.* 2005).

Madagascar Pond Heron *Ardeola idae*

Two 'out-of-range' records (all islands excluding Aldabra): Aride, North; August, November.

Indian Pond Heron *Ardeola grayii*

Four records: Bird, Mahé, Frégate, Denis; September–February.

Ardeola sp.

Seven indeterminate records: Cousin, Bird (2), Mahé (2), Frégate, Denis; March, October–January.

Little Egret *Egretta garzetta*

Nineteen records: Mahé (14), Frégate, La Digue, Silhouette (3); October–June.

Intermediate Egret *Egretta intermedia*

Two records: Mahé, Platte; March–October.

Great Egret *Egretta alba*

Nine records: Mahé (3), Aldabra (3), Praslin, D'Arros, Desroches; February, May, July–December.

Purple Heron *Ardea purpurea*

Thirty-two records: Curieuse, Bird (4), Mahé (11), Praslin (2), La Digue (4), Aride (2), Frégate (2), Silhouette (3), Platte, Alphonse (2); April–May, July–February.

White Stork *Ciconia ciconia*

Five records: Mahé (2), Bird, Denis, D'Arros; December–February, April.

Glossy Ibis *Plegadis falcinellus*

Three records: up to 12 at the airstrip, Denis Island, 22 February 2003; up to six at La Passe, La Digue, mid-January to 27 March 2003; one at Beau Vallon, Mahé, 3–6 December 2003 (Hoareau & Skerrett 2005).

Sacred Ibis *Threskiornis aethiopicus*

One record: Aldabra; February.

Greater Flamingo *Phoenicopterus ruber*

Three 'out-of-range' records (excluding Aldabra): Mahé, Farquhar, Frégate; January–May, October, December.

White-faced Whistling Duck *Dendrocygna viduata*

Four records: Aldabra (3), Assumption; April, June, September.

Ruddy Shelduck *Tadorna ferruginea*

One record: Mahé; December.

Mallard *Anas platyrhynchos*

One record: Silhouette; December–January.

Northern Pintail *Anas acuta*

Seven records: Mahé (2), Cousin, Aride, Praslin (2), Silhouette; November–February.

Northern Shoveler *Anas clypeata*

Eight records: Assumption, Mahé (3), Frégate, Bird, Praslin, Aride; October–March.

Ferruginous Duck *Aythya nyroca*

Three records: Mahé; April, May, December.

Osprey *Pandion haliaetus*

Two records: Praslin, Denis; July–February.

European (Western) Honey Buzzard *Pernis apivorus*

Three records: Félicité, Praslin, D'Arros; September–October, March–May.

Black Kite *Milvus migrans*

Two records: Silhouette, Cousin; December.

Yellow-billed Kite *Milvus [migrans] aegyptius*

Six records: Aldabra (6); October–February, August.

Pallid Harrier *Circus macrourus*

One record: immature male, Platte, January–March 2002 (Skerrett & Roest 2003).

Montagu's/Pallid Harrier *C. pygargus/macrourus*

One indeterminate record: Aldabra; March.

Western Marsh Harrier *Circus aeruginosus*

Two records: Frégate, Mahé; January–February.

Booted Eagle *Hieraetus pennatus*

One record: Mahé; November.

Lesser Kestrel *Falco naumanni*

Three records: Praslin, Bird, Mahé; April–May, October–December.

Lesser Kestrel/Common Kestrel

F. naumannil/tinnunculus

One indeterminate record: Praslin; November.

Red-footed Falcon *Falco vespertinus*

Four records: Bird, Aride (3); November–December.

Amur Falcon *Falco amurensis*

Twenty-two records: Desroches (2), Cousine, Frégate (3), Mahé, Aride (2), Alphonse (6), Platte, La Digue, Praslin, Bird (3), Silhouette; July–March.

Eleonora's Falcon *Falco eleonorae*
 Twenty-four records: Cousin, Aldabra (9), Aride (5), Frégate (3), Assumption, Silhouette (2), Platte, Alphonse, Bird; October–February.

Sooty Falcon *Falco concolor*
 Five records: Aldabra, Frégate, Aride (3); November–December.

Eleonora's/Sooty Falcon *F. eleonorae/concolor*
 One indeterminate record: Aldabra; April.

Eurasian Hobby *Falco subbuteo*
 Seventeen records: Cousine, Mahé (3), Cousin (2), Aride (4), Frégate, Denis, Silhouette (2), Alphonse (2), Bird; October–January.

Saker Falcon *Falco cherrug*
 One record: immature, Aride, 24–25 December 2000.

Peregrine Falcon *Falco peregrinus*
 One record: Cousin; November.

Common Quail *Coturnix coturnix*
 Three records: Mahé, Aride, Bird; May, November, December.

Corncrake *Crex crex*
 Three records: Bird, Aride, Frégate; January, October, November.

Little Crake *Porzana parva*
 One record: one at Cousin, 25–27 December 2004.

Spotted Crake *Porzana porzana*
 One record: Mahé; December–February.

Striped Crake *Aenigmatolimnas marginalis*
 One record: Aldabra; December.

White-breasted Waterhen *Amaurornis phoenicurus*
 One record: Mahé; December.

Allen's Gallinule *Porphyrio alleni*
 Six records: Aldabra (2), Mahé, La Digue, Desroches, Praslin; July, December–March.

Gallinule sp.
 One indeterminate record, possibly Lesser Moorhen *Gallinula angulata* or American Purple Gallinule *Porphyryla martinica*; Aldabra; July.

Eurasian Oystercatcher *Haematopus ostralegus*
 Six records: Aldabra, Mahé (4), Aride; October–August.

Black-winged Stilt *Himantopus himantopus*
 Four records: Mahé, Praslin, Bird, Alphonse; September–May.

Stone-curlew *Burhinus oedicnemus*
 One record: one at the tern colony and adjacent beach, Bird Island, 24 October 2004–9 February 2005.

Collared Pratincole *Glareola pratincola*
 Four records: Praslin (2), Frégate, Mahé; January; October–November.

Oriental Pratincole *Glareola maldivarum*
 Nine records: Mahé (4), Praslin (2), La Digue, Alphonse (2); March–April, September–December.

Collared/Oriental Pratincole
G. pratincola/maldivarum
 Three indeterminate records: Praslin (2), Bird; October.

Black-winged Pratincole *Glareola nordmanni*
 Four records: Bird, Frégate, Alphonse, Mahé; April, October–December.

Black-winged/Oriental Pratincole
G. nordmanni/maldivarum
 One indeterminate record: Bird; October.

Pratincole sp. *Glareola* sp.
 Thirteen indeterminate records: Bird (4), Praslin (4), Frégate, Mahé (2), Alphonse, Denis; September–November.

Madagascar Pratincole *Glareola ocularis*
 Three records: adult at Grand Terre, Aldabra, 6–7 November 2001; immature at the Inter-Island Quay, Mahé, 21–25 October 2002; immature at Lemuria Golf Course, Praslin, 25–27 October 2002.

Little Ringed Plover *Charadrius dubius*
 Nine records: Mahé (4), Cousin, Bird (2), Frégate, Aride; January–April, September–November.

Caspian Plover *Charadrius asiaticus*
 Fifteen records: Bird (5), Frégate (2), Praslin (4), Farquhar, Silhouette, Mahé (2); March–April, June, August–December.

Oriental Plover *Charadrius veredus*

Four records: Praslin (2), Frégate, Alphonse; January, October–November.

Caspian/Oriental Plover *C. asiaticus/veredus*

Three indeterminate records: Bird (2), Mahé; September–October.

Sociable Lapwing *Vanellus gregarius*

One record: first-winter at the airstrip, Alphonse, about 12 November 2001–about March 2002 (Skerrett 2003).

Great Knot *Calidris tenuirostris*

Two records: Mahé; March–April.

Great/Red Knot *C. tenuirostris/canutus*

Two indeterminate records: Mahé; January–July.

Temminck's Stint *Calidris temminckii*

Five records: Bird, Mahé (3), Praslin; September–October, December.

Long-toed Stint *Calidris subminuta*

One record: Mahé; November.

Pectoral Sandpiper *Calidris melanotos*

Three records: Bird, Praslin, Mahé; August, October.

Sharp-tailed Sandpiper *Calidris acuminata*

Three records: Mahé; July, September–February.

Broad-billed Sandpiper *Limicola falcinellus*

Four records: Praslin (3), Mahé; October.

Buff-breasted Sandpiper *Tryngites subruficollis*

Five records: Bird (2), Platte, Praslin, Mahé; March, November–January.

Ruff *Philomachus pugnax*

Twenty-five records: Bird (3), Mahé (12), Cousin (2), Frégate (4), Praslin, Alphonse, Aride, Cousine; August–February.

Common Snipe *Gallinago gallinago*

Eleven records: Aride, Frégate (5), Mahé (3), Praslin, La Digue; October–February.

Great Snipe *Gallinago media*

Two records: Praslin, Frégate; October–December.

Pintail Snipe *Gallinago stenura*

Three records: Aldabra, Mahé (2); March–April, November.

Snipe sp. *Gallinago* sp.

Eight indeterminate records: Mahé, Bird (3), Praslin, Frégate (2), Aride; September–January, March.

Bar-tailed Godwit *Limosa lapponica baueri*

One subspecies record (*L. l. lapponica* is an annual migrant): Frégate, March–October.

Black-tailed Godwit *Limosa limosa*

Six records: Bird (3), Alphonse (2), Aride; October–December.

Little Curlew *Numenius minutus*

Two records: Bird, Mahé; October–April.

Spotted Redshank *Tringa erythropus*

One record: one at Providence, Mahé, 17 December 2000 (Skerrett 2003).

Common Redshank *Tringa totanus*

Three records: Mahé (3); November–March.

Marsh Sandpiper *Tringa stagnatilis*

Nine records: Mahé (8), Cerf; January–February, May, October–November.

Green Sandpiper *Tringa ochropus*

Seven records: Silhouette, Praslin (2), Mahé (3), Frégate; October–January.

Grey-tailed Tattler *Heteroscelus brevipes*

Two records: Mahé, Bird; all months.

Red-necked Phalarope *Phalaropus lobatus*

Two records: Denis, Mahé; November.

Arctic Skua *Stercorarius parasiticus*

Three records: Frégate, Bird, Aride; December–February.

Pomarine/Arctic Skua *S. pomarinus/parasiticus*

Two indeterminate records: Aride, north-east of Bird; January, November.

South Polar Skua *Catharacta maccormicki*

Four records: Aride (4); July.

Black-headed Gull *Larus ridibundus*

Fourteen records: Mahé (9), Praslin (5); December–February.

Black-/Grey-/Brown-headed Gull

L. ridibundus/cirrocephalus/brunnicephalus

Five indeterminate records: Frégate, Desroches, Aldabra, Mahé (2); October, December–February.

Lesser Black-backed Gull *Larus fuscus*
Three records: Aride, Mahé, Aldabra; October–November.

Heuglin's Gull *Larus heuglini*
Two records: Mahé, Bird; February, December.

Lesser Black-backed/Heuglin's Gull
L. fuscus/heuglini
Two indeterminate records: Mahé, Bird; January, February.

Caspian Tern *Sterna caspia*
One ‘out-of-range’ record (outside Aldabra group): between Aride and Bird; November.

Greater Crested Tern *Sterna bergii velox*
One vagrant subspecies record (*S. b. thalassinus* breeds): Bird; September–October.

Sandwich Tern *Sterna sandvicensis*
Four records: Cousin, Mahé (3); March, October, December.

Black-naped Tern *Sterna sumatrana*
Four ‘out-of-range’ records (east of the Amirantes): Bird, Aride (2), Cousin; June, October, December–January.

Roseate Tern *Sterna dougallii*
One ‘out-of-range’ record (west of the Amirantes): Cosmoledo; June.

White-cheeked Tern *Sterna repressa*
Two records: adult at Aldabra, 12 December 1976; adult at Providence, Mahé, 20 November 2004.

Bridled Tern *Sterna anaethetus*
One ‘out-of-range’ record (west of the Amirantes): Aldabra; June.

Little Tern *Sterna albifrons*
One record: Mahé; April.

Whiskered Tern *Chlidonias hybrida*
Four records: Praslin, Mahé (2), La Digue; October, March–April.

European Turtle Dove *Streptopelia turtur*
Six records: Aldabra (2), Bird (2), Aride (2); November–December.

European/Oriental Turtle Dove
S. turtur/orientalis
One indeterminate record: Frégate; October.

Madagascar Turtle Dove *Streptopelia picturata picturata*
One ‘out-of-range’ record (islands with no breeding population): Platte; March–July.

Jacobin Cuckoo *Clamator jacobinus*
Five records: Bird, Frégate (2), Praslin, Aride; March, November–January.

Great Spotted Cuckoo *Clamator glandarius*
One record: Bird; October.

Common Cuckoo *Cuculus canorus*
Twenty-one records: Mahé (9), Aride (3), Cousine, Aldabra, Bird (2), Silhouette (2), Frégate (2), Denis; September–January, April.

Asian Lesser Cuckoo *Cuculus poliocephalus*
Eleven records: Mahé (4), Frégate (2), Cousine, Aride (2), Praslin, Alphonse; November–February, April.

Asian/Madagascar Lesser Cuckoo
C. poliocephalus/rochii
Two indeterminate records: Aldabra, Mahé; October–November.

Cuckoo sp. *Cuculus* sp.
Twenty-eight indeterminate records: Aldabra (2), Mahé (8), Bird (2), Cousin (5), La Digue (2), Frégate (6), Silhouette, Félicité, Denis; September–January, April–June.

Eurasian Scops Owl *Otus scops*
Six records: Frégate, Aride (2), Mahé, Bird, Conception; October–December.

Brown Fish Owl *Ketupa zeylonensis*
One record: Mahé; November. Possibly ship-assisted and/or deliberately released.

Eurasian Nightjar *Caprimulgus europaeus*
Two records: Bird, Denis; November–December.

Nightjar sp. *Caprimulgus* sp.
One indeterminate record: Bird; November.

White-throated Needletail *Hirundapus caudacutus*
Four records: Aldabra, Mahé, Bird, Frégate; April, October–November.

Common Swift *Apus apus*
Fourteen records: Aldabra (3), Bird (5), Assumption (2), Frégate (3), St François; September–May.

Pacific Swift *Apus pacificus*

Ten records: Bird (5), Frégate (3), North, St François; May, October–January.

Little Swift *Apus affinis*

Three records: Mahé, Aride, Aldabra; November–January.

Grey-headed Kingfisher *Halcyon leucocephala*

One record: adult, Denis Island, 30 December 2003–16 February 2004.

Alcedo sp.

One indeterminate record, probably Common Kingfisher *A. atthis*; Frégate; December–January.

Blue-cheeked Bee-eater *Merops persicus*

Thirty-two records: Aldabra (2), Bird (8), Mahé (2), Frégate (2), Cousin, Desnoeufs, Marie Louise, Platte, Denis (2), Alphonse, Aride, Conception, Cousin, Curieuse, Desroches, North, Praslin (2), Rémire, Silhouette, South-east Island; November–May.

Blue-cheeked/Madagascar Bee-eater

M. persicus/superciliosus

Two indeterminate records: Cosmoledo, Mahé; October–November.

European Bee-eater *Merops apiaster*

Two records: Cosmoledo, Aldabra; November–December.

European Roller *Coracias garrulus*

Thirty records: Aride (2), Aldabra (5), Praslin (6), Mahé (9), African Banks, Bird (3), Frégate, Denis, Silhouette (2); October–March.

Broad-billed Roller *Eurystomus glaucurus*

Nine records outside Aldabra group: Providence, Bird (4), Frégate (2), Alphonse, Platte; October–March.

Hoopoe *Upupa epops*

Three records: Aldabra (one *U. e. africana* and one *U. e. epops/senegalensis*) and Curieuse (one *U. e. africana*).

Bimaculated Lark *Melanocorypha bimaculata*

One record: one at the tern colony, Bird Island, 22–27 November 2003 (Phillips & Phillips 2005).

Greater Short-toed Lark *Calandrella brachydactyla*

Two records: Frégate; February, November–December.

Mascarene Martin *Phedina borbonica*

Six records: Aldabra (3), Desnoeufs, Bird, Assumption; May, October–November.

Common Sand Martin *Riparia riparia*

Fifteen records: Aldabra (3), Mahé (3), Frégate (4), Bird (2), Aride (2), Platte; October–March, May–June.

Common House Martin *Delichon urbicum*

Six records: Aldabra (2), Farquhar, Bird (3); March, June, October.

Yellow Wagtail *Motacilla flava*

Twenty-one records: Aldabra (7), Mahé (3), Bird (4), Frégate, Alphonse (2), Platte (2), Silhouette, Cousine; October–May.

Citrine Wagtail *Motacilla citreola*

One record: Frégate; April.

Grey Wagtail *Motacilla cinerea*

Six records: Bird, Marie-Louise, Frégate, Silhouette, Mahé (2); March, October–November.

White Wagtail *Motacilla alba*

Twenty-one records: Aldabra (2), Mahé (6), Bird (4), Frégate (3), Aride (3), Silhouette (2), Platte; November–March.

Red-throated Pipit *Anthus cervinus*

Fourteen records: Mahé, Frégate (7), Bird (2), Praslin (3), Alphonse; October–March.

Common Redstart *Phoenicurus phoenicurus*

Seven records: Cousin, Aride (3), Bird, Platte, Denis; October–February.

Whinchat *Saxicola rubetra*

Two records: Bird; November.

Northern Wheatear *Oenanthe oenanthe*

Forty-one records: Aldabra (28), Bird (8), Mahé, Frégate, Aride, Platte, Denis; October–March.

Pied Wheatear *Oenanthe pleschanka*

One record: first-winter male west of the hotel, Bird, 16–20 November 2000.

Isabelline Wheatear *Oenanthe isabellina*
Three records: Praslin, Alphonse, Bird; October–January.

Common Rock Thrush *Monticola saxatilis*
Three records: Farquhar, Frégate, Bird; October.

Sedge Warbler *Acrocephalus schoenobaenus*
One record: Cousin; November.

Icterine Warbler *Hippolais icterina*
One record: Aride; November.

Willow Warbler *Phylloscopus trochilus*
Three records: Frégate, La Digue, Aldabra; February–March, November.

Chiffchaff *Phylloscopus collybita*
One record: one at Alphonse, 27 January 2001 (Skerrett 2003).

Willow Warbler/Chiffchaff *P. trochilus/collybita*
Two indeterminate records: Aldabra, Astove; April.

Wood Warbler *Phylloscopus sibilatrix*
Two records: Aldabra, Cousin; November–December.

***Phylloscopus* sp.**
One indeterminate record: Bird; December.

Blackcap *Sylvia atricapilla*
One record: Curieuse; November.

Common Whitethroat *Sylvia communis*
Two records: Aldabra, Bird; March, October.

Spotted Flycatcher *Muscicapa striata*
Twenty-seven records: Aldabra (20), Cousin, Bird (3), Aride (2), D'Arros; March, October–December.

Lesser Grey Shrike *Lanius minor*
Two records: Aldabra, Bird; March, November.

Red-backed Shrike *Lanius collurio*
Six records: Cosmoledo, Aldabra (4), Bird; March, November.

Woodchat Shrike *Lanius senator*
One record: Aride; April.

European Golden Oriole *Oriolus oriolus*
Eight records: Aldabra (4), Bird (3), Aride; March–April, September–November.

Wattled Starling *Creatophora cinerea*
Three records: Bird, Aldabra (2); July–February.

Rose-coloured Starling *Sturnus roseus*
Four records: Bird, Frégate (3); October–April.

Seychelles Fody *Foudia sechellarum*
One 'out-of-range' record (islands without breeding populations): Bird; October.

Scarlet Rosefinch *Carpodacus erythrinus*
One record: Aride; October.

Ortolan Bunting *Emberiza hortulana*
One record: Aride; November.

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Observations on the biology of the Ethiopian Bush Crow

Zavattariornis stresemanni

Kai Gedeon

Observations sur la biologie du Corbin de Stresemann *Zavattariornis stresemanni*. Le Corbin de Stresemann *Zavattariornis stresemanni* possède une aire de répartition extrêmement réduite au sud de l'Ethiopie et sa survie est menacée par la modification de son habitat. Il figure comme Menacé d'extinction sur la liste rouge de l'IUCN, et sa biologie demeure peu connue. Pendant des travaux sur le terrain dans la zone de Yabello, en février–mars 2005, de nouvelles données ont été collectées, en particulier concernant ses expressions faciales, son comportement social et ses exigences en matière d'habitat. L'espèce est capable de lisser les plumes autour et derrière l'œil, exposant ainsi un triangle de peau nue roseâtre, l'iris normalement rond se rétrécissant verticalement en même temps. Il s'agit apparemment d'une forme d'expression, inconnue chez d'autres espèces d'oiseaux, qui est utilisée uniquement dans certaines circonstances (par exemple en cas de menace ou d'excitation). Le répertoire de comportements de l'espèce comprend le nourrissage mutuel et la toilette mutuelle, tout deux observés fréquemment. Le comportement lors de la recherche de nourriture semble indiquer que la présence d'une couche de terre lâche et relativement profonde, contenant une source de nourriture préférée (des larves de coléoptères), est cruciale. Ceci expliquerait tant la concentration de couples nicheurs de Corbins dans des peuplements éclaircis d'*Acacia* que sa grande densité près de champs fraîchement labourés, et est probablement la raison pour laquelle la zone occupée par *Zavattariornis* est aussi restreinte.

Summary. Ethiopian Bush Crow *Zavattariornis stresemanni* has an extremely small range in southern Ethiopia and its survival is threatened by habitat change. It is treated as Endangered in the IUCN Red Data List, and very little is known of its biology. During field work in the Yabello region in February–March 2005 new data were collected, particularly concerning its comportment, social behaviour and habitat requirements. The bird was found to have the remarkable ability of displacing the feathers around and behind the eye, to expose a naked, flesh-coloured triangle of skin, whilst the otherwise round iris was vertically narrowed. This appeared to be a form of expression used only in particular contexts (e.g. when threatened or aroused). It is unknown in any other bird species. The species' behavioural repertoire includes allofeeding and allopreening, both of which were frequently observed. Feeding behaviour suggests that a crucial habitat requirement is the presence of loosely packed, relatively deep soil with the associated presence of a preferred food resource (beetle larvae). This would explain both the concentration of bush crow breeding pairs in thinned-out *Acacia* stands and its high density adjacent to freshly ploughed fields, and is probably the reason why the area inhabited by *Zavattariornis* is so restricted.

The discovery of Ethiopian Bush Crow *Zavattariornis stresemanni* was one of the most remarkable ornithological events of the 20th century in Africa. It occurred during the era of the Italian colonial occupation of north-east Africa. An expedition from the Zoological Institute of the Royal University in Rome, led by Edoardo Zavattari, travelled through the south Ethiopian Borana territory in 1937 and collected a single bush crow. It was described the following year by Moltoni (1938), who allocated the species to the Corvidae. However, as the bird did not resemble

any of the known representatives of this family in the Old World, the author erected a new genus for its discoverer.

Ethiopian Bush Crow sports a conspicuous azure-blue patch of naked skin around the eye that is unusual for a corvid, but also found in the north-west African subspecies of Common Magpie *Pica pica mauritanica* though, perhaps surprisingly, Moltoni (1938) did not mention this in his discussion of the species' relationships. Benson (1946) threw doubt on the species' membership of the Corvidae as its Mallophaga were

atypical of corvids. Lowe (1949) remarked on idiosyncrasies in the palate structure and, because of this and other anatomical peculiarities placed the species in its own family Zavattariornidae. However, this was not generally accepted and, until recently, the species continued predominantly to be classified within the Corvidae. Fry *et al.* (2000) preferred to place it in the Sturnidae, emphasising anatomical characteristics in common with the Wattled Starling *Creatophora cinerea*. However, molecular analysis by Ericson *et al.* (2005) revealed that Ethiopian Bush Crow is indeed a corvid, its closest relatives being *Podoces*, *Ptilostomus* and *Pica*.

The species inhabits an extremely small area of c.4,600 km² in southern Ethiopia, the centre of which is circumscribed by the towns of Yabello, Arero and Mega. Remarkably little is known of its biology, the very small number of recent studies being predominantly concerned with its status and threats to the species, as well as habitat change (e.g. Hundessa 1991, Syvertsen & Dellelegn 1991, Collar *et al.* 1994, Borghesio & Giannetti 2005). The population is estimated at c.10,000–20,000 individuals, though no reliable studies exist. The species is listed as Endangered in the 2005 IUCN Red List (BirdLife International 2004, 2005). In 2005, I undertook ornithological observations in the Borana region and was able to collect new data on the biology of the species.

Study area and methodology

I visited the Derido area (c.15 km south of Yabello and easily reached from the latter, 04°46'N 38°10'E) from 13 February to 6 March 2005. The mean altitude of the region, at the foot of a massif reaching 2,365 m, is c.1,700 m. A narrow belt of *Acacia* spp. replaces the bush on the barren slopes. In turn, this is replaced by agricultural land in the flat lowlands (Fig. 1). Climate was dry until 26 February; thereafter there were some periods of heavy rainfall each day.

Observations lasting several hours were undertaken at all times of day and recorded. The total observation period was c.120 hours. Population densities were estimated by transects wherein, because of the openness of the terrain, it was possible to register observations up to 100 m either side of the transect (see Table 1 for more details). These were walked slowly. Photographs of the

bush crows, to record their behaviour, were taken with a digital camera with 12x digital zoom.

Results

External characteristics

One of the most remarkable features of Ethiopian Bush Crow is the blue patch of naked skin around the eye. This patch extends towards the base of the bill in a narrowing band (Fig. 2). It has a warty appearance and, around the eye, a single row of bristles that broaden into a mat of bristles at the base of the bill (Fig. 3). The crow is able to displace the feathers around and behind the eye, thereby exposing a naked, flesh-coloured triangle of skin (Fig. 4; see also photographs in Francis & Shirihai 1999). This results in the eye appearing to bulge, and the otherwise round iris is thereby vertically narrowed. This action was repeatedly observed when a bush crow approached the observer as close as 2 m side on. I concluded that it was intended as a threat. When aroused for other reasons, the gesture was observed in a more infrequent and less pronounced manner, for example when a bird was fed by its partner or during nest selection. Skin around the eye can also be contracted (Fig. 5), but this occurred relatively rarely and served to reinforce the effect of the gesture. The flesh-coloured triangle behind the eye was rarely if ever observed under other circumstances, such as when feeding or resting (Fig. 6).

Voice

Bush crows are very vocal and were usually detected by such means in the field. In addition to the common contact call *kej* and the equally common call sequence *kerr kerr kerr . . .*, six other vocalisations were identified and related to specific circumstances. However, their exact function is unclear. Some of the calls were very soft and could only be heard at close range. It is therefore possible that the actual repertoire comprises more calls than those described here:

- A single metallic *kej* is the most commonly heard call, being often uttered when searching for food on the ground and in flight (clearly a contact-call).
- A nasal, rapid *kerr kerr kerr . . .*, at a distance reminiscent of a Zebra Finch *Taeniopygia guttata* and often given in flight, especially when in flocks (common).

- A metallic *kaw, kaw, kaw* . . . was occasionally uttered during allofeeding between adults (uncommon).
- A rapid *how, how, how* . . . ; a rather quiet vocalisation uttered whilst foraging in flocks; its function is unclear (uncommon).
- Several single *quak* notes; a rather quiet vocalisation uttered whilst foraging in flocks; its function is unclear (uncommon).
- A single, very soft *guw*, often variably repeated at irregular intervals; a rather quiet vocalisation uttered whilst foraging in flocks, its function is unclear (uncommon).
- A single, deep *waw* given when rubbing bills together (uncommon).
- A single *keh*, reminiscent of the *kej* contact-call, but softer; uttered when two or more adults were nest building.

The Borana people refer to the Ethiopian Bush Crow as 'Kaka' or 'Kake,' which, according to villagers, is an onomatopoeic description of its call.

Habitat and population density

The occurrence of the bush crow in the Derido region is concentrated in certain areas within the relatively narrow *Acacia* belt at the foot of the mountains. Recorded densities are summarised in Table 1.

Acacia stands adjoining cultivated areas supported the highest densities of bush crows. Fields, particularly their edges, were frequently used for foraging. Nests were also found in isolated trees

and bushes on cultivated land, but were never far from *Acacia* stands. More intensively cultivated areas, without trees and shrubs, were unoccupied. In the extensive bush-land on the plain, bush crow flocks were observed only irregularly, in particular where loosely packed soil and open areas provided conditions conducive to foraging. The species was absent from the stony and bushy slopes of the foothills and from *Juniperus* forests at higher altitudes.

In addition to trees and bushes suitable for nest building, the decisive factor for bush crow presence appeared to be sufficient loosely packed soil for foraging. Such conditions were optimum in open *Acacia* stands used for cattle pasture and, to a lesser extent, at edges of cultivated fields. The small, huddled villages of the Borana were fully incorporated into the birds' range (Fig. 7). The activity range of a breeding pair during the nest building period was c.2 ha.

Activity and roosting behaviour

Bush crows are mainly diurnal. Activity in the roost area was rare, and restricted to flights between the roosts in the crowns of acacias, usually between 5 minutes before and 10 minutes after sunset. Before complete darkness fell, the birds often changed their position in a tree uttering single contact-calls, *keh*, though they were generally quiet. As far as could be ascertained individuals roosted between 0.5 m and several metres apart, with no direct contact, even between birds that arrived at the roost in pairs. In one case, a flock of

Table 1. Transect counts
Tableau 1. Aperçu des transects

Transect number	1	2	3
Description	<i>Acacia</i> stand facing north with small villages and large areas of open pasture	<i>Acacia</i> stand adjoining extensively cultivated fields	Dense <i>Acacia</i> stand
Date	17 February 2005	18 February 2005	26 February 2005
Time	06.30–09.00	6.30–09.00	07.00–09.30
Transect length (m)*	1,970	925	1,600
Transect width (m)*	200	200	200
Area (km ² , rounded)	0.4	0.2	0.3
Groups counted	7	5	2
Individuals counted	34	23	4
Variation in group size	1–9	1–6	-
Individuals per group	4.9	4.9	2.0
Individuals per km ²	85	115	13

* GPS measurements

30 bush crows spent the night on two roost trees some 80 m apart with a large number of Superb Starlings *Lamprotornis superbus*. Birds were also observed roosting alone or in pairs. Trees used as roosts differed each night.

The first activity in the morning was registered c.10–15 minutes before sunrise. At sunrise, the birds were already searching for food or occupied with nest building. In one case, the first flight to a nest under construction occurred 17 minutes before sunrise.

During the day, birds were generally constantly active. Bush crows often searched for food even at midday. Short pauses were taken throughout the day for preening, which mostly occurred in small groups. Foraging continued until shortly before departing to the nocturnal roost.

Movement

On the ground, *Zavattariornis* mainly struts. After the start of the rainy season, with the associated massive occurrence of flying insects, bush crows were observed repeatedly making skilful flying jumps from the ground. They also moved with great agility within acacia trees, walking along the horizontal branches. Also, by hopping from branch to branch, they were able to manoeuvre from the lower branches of the tree to the crown. In flight, the legs were tucked into the undertail-coverts with the toes slightly bent so that they protruded from the plumage. The birds glided short distances from the crowns of acacias to the ground with wingbeats being used only to correct their direction and to land.

Plumage care and allopreening

Short phases of plumage care (usually 2–3 minutes, sometimes up to 15 minutes) occurred frequently between foraging bouts. Such activity often was undertaken in small groups with mutual preening between adults a regular occurrence (Fig. 8). Particular attention was paid to preening the chin, the area around the eyes and the base of the bill. Birds often actively demanded preening by presenting their throat to another bird, with ruffled head and throat feathers. This demand was usually met immediately. Interestingly, subsequent reciprocal care of the preening bird was never observed.

Sometimes more than two birds participated in allopreening. One was observed preening

another and itself being preened by a third. During nest construction, preening was often observed between the pair involved. Bills were also often whetted on branches, as was the blue eye-patch.

Foraging

The diet apparently consists mainly of arthropods. Pupae and larvae were excavated and removed from the soil with the bill. This was performed by hacking deep into the soil with the bill slightly opened. The birds sometimes took the earth-covered pupae to the nearest tree or bush where they held the prey in their claws to work on it with the bill. Bush crows were often observed searching for food under cattle dung. They did not turn the large cowpats over, but levered them up slightly with their bill, with their head on one side.

Additionally, insects such as Lepidoptera were collected from the ground or caught in the air following rain. Insects flying close to the ground were also chased on foot at a fast pace and with sudden changes of direction. Rotten branches were attacked, with the bill being used like a woodpecker, apparently in order to find arthropod larvae. A bush crow was also observed landing on the back of a Zebu cow to peck for food, probably parasites, but these were not directly observed.

Foraging occurred alone or in groups (Fig. 9). Only once was a dispute over food between bush crows observed, when one bird was seen attempting to take a large moth away whilst being chased by another bird. It finally succeeded in working on its prey and consumed it on the ground.

Preferred feeding areas were open sheep and cattle pastures between acacias, as well as ploughed fields. Dung heaps and rubbish dumps near villages were also visited (Fig. 10).

Group size, allofeeding, sexual behaviour and nest building

Ethiopian Bush Crows were often found in flocks of 2–6, sometimes 20 birds ($\times 4.8, n=24$), which searched for food. At times, these small flocks gathered into larger flocks of up to 30. These were usually only temporary associations, which rapidly disbanded, with loud contact-calls (*kej*). These gatherings, which were observed several times per day, apparently consisted of the members of neighbouring breeding groups (see below). Their function is unclear. Even the smaller groups lacked



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a permanent composition. Singles or pairs gathered infrequently to search for food or to preen, and subsequently joined other birds.

Allofeeding between adults was frequent. The initiative was usually taken by the feeding bird. Some feeding birds flew from as far away as 30 m with a prey in their bill. The donor put the food directly into the other bird's bill by holding its head horizontally to one side so that the other bird could take the proffered food. The bird being fed depressed its body close to the ground and sometimes fluttered its wings (Fig. 11). Feeding calls were sometimes heard. Once an adult was observed begging consecutively from two different members of the group: it was fed by one but refused by the other. On another occasion, one bird waited next to another as the latter seemed

likely to secure prey which it did and subsequently fed the first bird.

Feeding sometimes developed into display. A bird was observed positioning itself in front the bird it had just fed, spreading its belly plumage and squatting slightly as if it was about to brood (Fig. 12). Subsequently it straightened, stretched its head steeply upwards, and finally tilted it backwards. The display was observed with apparent interest by the other bird but without any obvious reciprocal behaviour (Fig. 13). Once, the display was observed to take the form of a presentation of twigs: two birds were foraging together when one picked up a twig with its bill, went over to the other, and presented it. The other bird accepted the twig, but discarded it shortly afterwards. Both then continued searching for food.

Captions to plate on opposite page

Figure 1. The countryside near Derido, southern Ethiopia. The loosely packed soil of the pastures between the umbrella-form acacia was particularly favoured by the Ethiopian Bush Crow *Zavattariornis stresemanni* (K. Gedeon)

La campagne près de Derido, Ethiopie du sud. La couche de terre lâche des pâturages entre les acacias était particulièrement appréciée par le Corbin de Stresemann *Zavattariornis stresemanni* (K. Gedeon)

Figure 2. A notable characteristic of the Ethiopian Bush Crow *Zavattariornis stresemanni* is the naked, azure-blue skin-patch around the eye, which extends over the lores (K. Gedeon)

Une caractéristique importante du Corbin de Stresemann *Zavattariornis stresemanni* est la tache bleu-azuré de peau nue autour de l'œil, qui s'étend au-dessus des lores (K. Gedeon)

Figure 3. The eyes are surrounded by a single row of bristles that thicken towards the bill into a bristle mat (K. Gedeon)

Les yeux sont entourés d'une rangée de vibrisses qui s'épaissit vers le bec en une brosse (K. Gedeon)

Figure 4. The bush crow presents a naked flesh-coloured skin patch behind the eye, presumably as a threat gesture and when aroused. The feathers around and behind the eye are displaced which results in the eye appearing to bulge. The iris is vertically narrowed (K. Gedeon)

Le Corbin présente un triangle rosâtre de peau nue derrière l'œil, vraisemblablement comme un geste de menace et d'excitation. Les plumes autour et derrière l'œil sont

lissées, donnant l'impression d'un œil protubérant. L'iris est verticalement rétréci (K. Gedeon)

Figure 5. The skin around the eye can also be contracted, which emphasises the effect of the gesture (K. Gedeon)

La peau autour de l'œil peut également être contractée, accentuant l'effet du geste (K. Gedeon)

Figure 6. Usually, e.g. during foraging or when at rest, the flesh-coloured patch behind the eye is not or only scarcely noticeable. Note also the typical corvid ruffled 'trousers' (K. Gedeon)

Normalement, par exemple pendant la recherche de nourriture ou au repos, la tache rosâtre derrière l'œil n'est pas ou à peine visible. Noter également le 'pantalon' hérisson typique des corvidés (K. Gedeon)

Figure 7. Ethiopian Bush Crow *Zavattariornis stresemanni* also breeds in the centre of Borana villages and shows little fear of man. A nest from the previous year in the *Acacia* centre right, with the author's tent below it (K. Gedeon)

Le Corbin de Stresemann *Zavattariornis stresemanni* niche également au milieu de villages Borana et est peu farouche. Noter le nid de l'année précédente dans l'*Acacia* au centre-droit, avec la tente de l'auteur en dessous (K. Gedeon)

Figure 8. Allopreening. The bird on the right is moving closer and presents its ruffled head and throat plumage, inviting the other bird to preen (K. Gedeon)

Toilette mutuelle. L'oiseau de droite s'approche et présente ses plumes hérisssées de la tête et la gorge, invitant l'autre oiseau à lui faire sa toilette (K. Gedeon)

Selection of the nest site is made in pairs or groups. In one case, initially four then three birds were involved. A twig is worked into the crown of an acacia and then tugged into place whilst those present raise a great clamour and show animated facial expressions (see External characteristics). The birds plucked green acacia leaves and held them in their bills for a while before letting them fall. They did the same demonstratively with twigs, earth and other fine materials before chasing one another, with the material in their bills, through the treetop. This activity was greatly ritualised and, at the time, clearly was unrelated with collecting material for the nest. Nest site selection was concluded after two days.

Bush crows remained in groups for the subsequent phases of nest building. Three to five pairs often constructed their nests within distances of 30–100 m of each other. However, it is difficult to designate these groups of nests as well-defined colonies, as neighbouring nests are often not far away, and it is unclear whether, and in what form, the birds are associated with neighbouring groups. The first rain of the season fell on 27 February and the previously somewhat hesitant nest building activity was greatly intensified next day. New nests were begun and existing nests from the previous year repaired (Fig. 14). Several birds were active at each nest, three birds being the rule, but at times up to six were present at a single nest, although not all were involved in the actual nest building. These latter birds, helpers or potential helpers, were usually tolerated. The reaction to pairs was different. On several occasions bush crow pairs were seen to chase a neighbouring pair through the treetops out of their nest area with loud *kerr-kerr* calls.

Two birds often brought nest material simultaneously. Such birds cooperated very intensively in nest building, and it is assumed that these were pairs. When one flew off with nest material, the other rapidly picked up a twig and followed to the nest. Twigs were gathered from within a radius of 150 m, and were taken from the ground or broken off from branches (Fig. 15). Wet clumps of soil were brought to the site at an early phase of nest building, clearly in order to fix the first twigs on the branch. Later, as well as twigs, cattle dung was also used. Whilst one bird constructed the nest, the partner and sometimes a helper often perched

in the immediate area. Allopreening and bill-rubbing occurred frequently on such occasions.

Some individuals, obviously helpers, assisted at different nests at the same time. Sometimes a bird attempted to add material to a nest, but then desisted and took the twig to another nest site c.100 m away. It would appear that helpers are not permanently affiliated to a particular breeding pair. Another apparently remarkable observation was of two birds that had searched for food together for a long period. Finally, they both gathered nesting material and transported it to two different nests. They were obviously not a pair—which, from their behaviour, had been assumed at first—but two helpers.

Nests were constructed in the crowns of acacia trees or bushes at 2.5–10 m above ground. On the day of my departure, 6 March, none of the nests was complete and copulation was never observed.

Interspecific behaviour

Once I saw a bush crow attacking an African Harrier Hawk *Polyboroides typus* as it attempted to plunder the nest of a Wattled Starling, Augur Buzzards *Buteo augur* which flew over or perched in the immediate proximity were only registered by the bush crow with a short alarm-call, but otherwise ignored. A hunting Gabar Goshawk *Micronisus gabar*, which was pursued by a loudly calling Northern White-crowned Shrike *Eurocephalus rueppelli*, and which caused Superb Starlings to utter alarm-calls and take flight, was completely ignored. A White-bellied Go-away-bird *Criniferoides leucogaster* had its tail pulled by a bush crow, after the latter had deliberately positioned itself behind it in the branches. This was more of a 'playful' behavioural reaction, as otherwise the two species were indifferent to one another. Other passerines occasionally mobbed bush crows or followed them in flight (e.g. Fork-tailed Drongo *Dicrurus adsimilis* and Greater Blue-eared Glossy Starling *Lamprotornis chalybaeus*).

Bush crows were often seen foraging with the following species: Ring-necked Dove *Streptopelia capicola*, Red-billed Hornbill *Tockus erythrorhynchus*, Shelley's Starling *Lamprotornis shelleyi*, Wattled Starling, White-browed Sparrow Weaver *Plocepasser mahali*, Red-billed Buffalo Weaver *Bubalornis niger* and White-headed

Buffalo Weaver *Dinemellia dinemelli*. They did not seek the company of these species but met at abundant food sources such as village refuse dumps. A Red-billed Hornbill repeatedly tried to steal prey from a bush crow, but the latter prevented this by skilfully avoiding its pursuer. However, the hornbills had the upper hand when it came to occupying a productive foraging site. Bush crows did successfully drive Superb Starlings from presumably good food sources. Ethiopian Bush Crows, probably due to their constant proximity to villagers, show little fear of man with an escape-flight of only a few metres.

Discussion

The variety of social interaction is an impressive element of the Ethiopian Bush Crow's behavioural repertoire, in particular the frequency of allofeeding and allopreening. According to local villagers, the bird appears to occur in flocks year-round and helpers are involved in the breeding process. Such behaviour occurs to a differing degree among corvids and is especially marked in Florida Scrub Jay *Aphelocoma c. coerulescens* (Woolfenden & Fitzpatrick 1990). The present study describes, in rough outline, comparably intense and complex group behaviour in a further corvid species.

Little is still known as to the exact extent and importance of allofeeding in birds. In a similar study of Jackdaws *Corvus monedula*, Selvis *et al.* (2003) showed that such feeding is common. It is still unclear whether, in the case of *Zavattariornis*, allofeeding is restricted to displaying and breeding pairs (courtship feeding). My observations seem to indicate that this is not the case and that food is also offered to other birds in the flock. Allofeeding and allopreening remained, as far as could be observed, unreciprocated. The gain for the donor may perhaps consist in fidelity or an increase in social prestige within the flock. Mating prospects may therefore be improved (handicap principle: cf. Roberts 1998). Zahavi (2002) and Kalishov *et al.* (2004) interpret their findings for Arabian Babbler *Turdoides squamiceps* similarly. More detailed studies of the social system of Ethiopian Bush Crow would require marking of individual birds, genetic analysis and more advanced comprehensive field research, but is clearly desirable.

A study of the bush crow's individual forms of facial expression offers a further fascinating field of study. The exposure of skin patches around the eyes, and the apparently associated changes in the iris, are probably unique.

Within its restricted range, Ethiopian Bush Crow is patchily distributed, but it is still common in the Yabello region, where it can attain high densities locally. However, this region is currently undergoing a profound change. In the course of the last few years, the small settlement of Yabello has become an administrative centre of several thousand inhabitants and a continually expanding residential area. Ethiopian Bush Crow was observed at the edge of the urban area but is absent from the centre.

Even more serious is habitat loss due to the increase in cultivated areas. In Yabello, as in Derido, *Acacia* stands are being cleared on a large scale. This process has accelerated during recent years due to political and administrative intervention. Some 10–20 years ago cultivation was virtually unknown in the Borana area, where the local people were nomadic pastoralists. Pastures were communal and private ownership of land or the constitution of food stocks was unknown (Helland 1997). A partial change in farming practices to more maize cultivation is intended to develop a monetary economy and promote self-sufficiency and the constitution of food stocks. The consequences for the habitat and the social system of the Borana will be devastating (Homann 2004). The *Acacia* stands inhabited by *Zavattariornis* in the areas surrounding villages are particularly threatened. They grow mainly on loosely packed, relatively stone-free and deep soil strata which is particularly suitable for cultivation. This, together with a sharp increase in human population, will result in continued habitat loss for Ethiopian Bush Crow. The region around Yabello is a designated wildlife sanctuary and an Important Bird Area (Tilahun *et al.* 1996). Although tree clearance for use as firewood is prohibited, this is difficult to enforce and apparently does not apply to the cultivation of new areas. In February–March 2005 several slash-and-burn operations were observed (Fig. 16).

Borghesio & Giannetti (2005) document changes in the Ethiopian Bush Crow population



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and the large-scale habitat change in its range since 1989. They estimate a decline in bush crow numbers for the period 1989–2003, based on roadside counts, at 80%. The authors suspect that, in addition to tree removal, the increasing transformation of open land to bush as a result of overgrazing by domestic stock, especially within the wildlife sanctuary, has led to a decline in bush crow numbers. The bush crow's preference for open areas (sparsely planted *Acacia* savanna) was confirmed by my study. Destruction of such areas, whether by clearance or transformation to bush, would have a negative effect on the bush crow population. The species' habitat cannot be extended by bush clearing in its primary locations of stony plains or slopes with a south-facing aspect, as soil conditions in these areas are unsuitable. Indeed, the crucial criterion is the presence of loosely packed deep soil with the bird's preferred prey (beetle larvae). This explains the concentration of bush crow breeding pairs in *Acacia* stands and the especially

high population density adjacent to freshly ploughed farmland. This is probably also the main reason why *Zavattariornis* inhabits such a small and well-defined area.

As with many other species, the future of the Ethiopian Bush Crow depends on a sustainable use of the land. The general deficits in and requirements for nature conservation in Ethiopia are well known, and have been listed in detail by the Biodiversity Support Programme (Jacobs & Schloeder 2001). The implementation of protection measures are however extremely difficult, not least because of the socio-economic situation in the country.

It is not only its comparatively recent discovery that makes the Ethiopian Bush Crow one of the most remarkable African birds. Its exceptionally interesting biology, and the acute threat to its habitat, should place it clearer than it has been to date in the focus of international research and conservation.

Captions to plate on opposite page

Figure 9. Small flocks of two to six birds (more seldom lone birds) are often seen searching for food (K. Gedeon)

De petits groupes de deux à six oiseaux (plus rarement des oiseaux solitaires) sont fréquemment observés recherchant de la nourriture (K. Gedeon)

Figure 10. Dung heaps and rubbish dumps (here maize cobs) around villages are inspected regularly (K. Gedeon)

Des tas de crottes et d'ordures (ici des épis de maïs) près des villages sont inspectés régulièrement (K. Gedeon)

Figure 11. Allofeeding. The bird being fed (on the right) cowers on the ground. The initiative to feed usually comes from the donor (K. Gedeon)

Nourrissage mutuel. L'oiseau se faisant nourrir (à droite) se tapit ou s'assied par terre. D'habitude l'initiative du nourrissage est pris par le donneur (K. Gedeon)

Figure 12. The display behaviour shown by the bird on the right was preceded by its feeding of the bird on the left. The donor cowers demonstratively before the other and spreads its belly-feathers as if brooding (K. Gedeon)

Le comportement de parade de l'oiseau à droite est précédé par son nourrissage de l'oiseau à gauche. Le donneur se tapit devant l'autre et écarte les plumes du ventre comme s'il allait commencer à couver (K. Gedeon)

Figure 13. Finally, the displaying bird straightens up, stretches its head upwards, and tilts it backwards. Its partner watches carefully throughout (K. Gedeon)

Enfin, l'oiseau paradant se redresse, allonge le cou et penche la tête vers l'arrière. Son partenaire l'observe attentivement pendant toute la procédure (K. Gedeon)

Figure 14. In some cases, new nests are built on top of old ones from previous years, so that large constructions are sometimes observed (K. Gedeon)

Dans certains cas, un nouveau nid est construit sur un ancien de l'année précédente, ce qui fait que de grosses constructions peuvent parfois être observées (K. Gedeon)

Figure 15. Besides twigs, earth and dung are used in the early stages of nest construction (K. Gedeon)

En dehors de brindilles, de la terre et des crottes sont utilisées dans les phases initiales de la construction du nid (K. Gedeon)

Figure 16. Habitat of Ethiopian Bush Crow
Zavattariornis stresemanni is threatened in particular by the spread of cultivation. Stands of *Acacia* are often subject to slash-and-burn operations to make way for cultivated land. The photograph was taken in bush crow habitat south of Yabello (K. Gedeon)

L'habitat du Corbin de Stresemann *Zavattariornis stresemanni* est menacé particulièrement par l'expansion des terres cultivées. Des peuplements d'acacias sont souvent brûlés pour faire place aux cultures. La photo a été prise dans une zone du Corbin au sud de Yabello (K. Gedeon)

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Atlas Flycatcher *Ficedula speculigera* or Collared Flycatcher *F. albicollis* in Mauritania?

Volker Salewski

Gobemouche de l'Atlas *Ficedula speculigera* ou Gobemouche à collier *F. albicollis* en Mauritanie? Un gobemouche énigmatique du genre *Ficedula*, capturé au filet japonais et photographié à Tichít, Mauritanie, le 17 septembre 2004, est décrit et son identification discutée. Bien qu'il ait été initialement considéré être un Gobemouche de l'Atlas *F. speculigera*, plusieurs caractéristiques typiques de cette espèce ne semblent pas correspondre. La possibilité qu'il s'agisse d'un Gobemouche à collier *F. albicollis* de première année, d'un hybride Gobemouche à collier × Gobemouche noir *F. hypoleuca* ou d'un Gobemouche de l'Atlas est examinée. Il est recommandé de faire extrêmement attention quand il s'agit d'identifier des gobemouches *Ficedula* noir-et-blanc en Afrique de l'Ouest, les connaissances des divers plumages de ces oiseaux n'étant toujours pas complètes.

Summary. An enigmatic *Ficedula* flycatcher, mist-netted and photographed in Tichít, Mauritania, on 17 September 2004, is described and its identification discussed. Although initially thought to be an Atlas Flycatcher *F. speculigera*, several features typical of the latter were apparently absent in the Mauritanian bird. The possibilities of the bird being a first-year Collared Flycatcher *F. albicollis*, a hybrid Collared × Pied Flycatcher *F. hypoleuca* or an Atlas Flycatcher are examined. It is recommended that extreme care be shown when attempting to identify black-and-white *Ficedula* flycatchers in West Africa, as current knowledge of the various plumages of these birds is still inadequate.

Three species of black-and-white flycatchers of the genus *Ficedula* occur in Europe, all of which are long-distance migrants wintering in different regions of sub-Saharan Africa (Cramp & Perrins 1993, Urban *et al.* 1997). Pied Flycatcher *Ficedula hypoleuca* is a common winter visitor to many West African countries (Dowsett 1993a, Urban *et al.* 1997); Collared Flycatcher *F. albicollis* and Semi-collared Flycatcher *F. semitorquata* winter in central and eastern Africa (Urban *et al.* 1997). In West Africa, Collared Flycatcher is a rare to scarce passage migrant with the westernmost records from Niger and northern Nigeria (Giraudoux *et al.* 1988, Elgood *et al.* 1994). Previous claims from Mauritania, Senegal, Mali and Ghana are all unsubstantiated or erroneous (Urban *et al.* 1997, Borrow & Demey 2001). There are no certain records of Semi-collared Flycatcher (Urban *et al.* 1997, Borrow & Demey 2001). A fourth species of black-and-white *Ficedula*, Atlas Flycatcher *F. speculigera* was recently split from Pied Flycatcher based on differences in mitochondrial DNA (Sætre *et al.* 2001, Sangster *et al.* 2004). The breeding population of

Semi-collared Flycatcher tentatively reported from Algeria (Moali *et al.* 1991) was rejected by Svensson & Mild (1992), who suggested that this population consisted of either Atlas Flycatchers or hybrid Atlas × Collared Flycatchers.

Atlas Flycatcher has a relatively small breeding range in the Atlas Mountains, from Morocco to Tunisia (Lundberg & Alatalo 1992, Urban *et al.* 1997). Few details concerning its migrations are known (Isenmann & Moali 2000, Thévenot *et al.* 2003). On presumed migration and on the wintering grounds, there are records from Senegal (mist-netted: Morel & Morel 1990) and Côte d'Ivoire (collected: Thiollay 1985; but specimen now lost: J.-M. Thiollay pers. comm.). There are no records from Mauritania, where the only black-and-white flycatcher is Pied Flycatcher (Lamarche 1988, Dowsett 1993b, Roth 2004).

During field work in Mauritania, 511 *Ficedula* flycatchers were ringed at various sites between spring 2003 and spring 2004. Of these, 510 were assigned to Pied Flycatcher; the other bird, mist-netted on 17 September 2004 in Tichít (18°26'N 09°30'W), was definitely not a Pied because of the



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Figure 1. *Ficedula* sp., Tichît, Mauritania, 17 September 2004. The large white spots on the median and primary coverts and the large white wing-patch formed by the white bases to the primaries exclude Pied Flycatcher *F. hypoleuca*, but are characteristic of Collared Flycatcher *F. albicollis* and Atlas Flycatcher *F. speculigera*. The pattern of the white edge of the tertial indicates a first-year (V. Salewski)

Ficedula sp., Tichît, Mauritanie, 17 septembre 2004. Les grandes taches blanches sur les couvertures moyennes et primaires et la grande tache alaire blanche formée par la base des rémiges primaires excluent le Gobemouche noir *F. hypoleuca*, mais sont caractéristiques du Gobemouche à collier *F. albicollis* et du Gobemouche de l'Atlas *F. speculigera*. Le pattern des lisérés blancs des rémiges tertiaires indique qu'il s'agit d'un oiseau de première année (V. Salewski)



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Figure 2. *Ficedula* sp., Tichît, Mauritania, 17 September 2004. The uniform brown mantle contrasts with the darker wings and tail. The rump-feathers have distinct whitish tips, but no anchor-like pattern; this pattern is not clearly developed on the neck-feathers either (V. Salewski)

Ficedula sp., Tichît, Mauritanie, 17 septembre 2004. Le manteau uniformément brun contraste avec les ailes et la queue plus sombres. Les plumes du croupion ont le bout distinctement blanchâtre, mais pas de pattern en forme d'ancrage; ce pattern n'est pas non plus développé clairement sur les plumes de la nuque (V. Salewski)

Captions to Figs. 3 and 4 on opposite page.

large white spots on the median coverts and rump, and the large white wing-patch formed by the white bases to the primaries (Figs. 1–2).

Black-and-white *Ficedula*, especially first-winters and non-breeding adults, are notoriously difficult to identify, even in the hand (Mild 1994b). The distinct step-like extension of the white fringe to the outer web of the central tertial indicates that the bird from Tichit was a first-year (Fig. 2), whilst the dark uppertail-coverts and rectrices and colour pattern of the tail-feathers (Fig. 3) were adult male-like (Mild 1994b). Its body mass was 11.4 g. Wing-length was 80 mm and length of p3 (numbered ascendantly, as in Mild 1994b) was 62 mm. The wingtip was formed by pp3–4. The tip of p2 fell between pp5 and 6 (Fig. 3). Throat and upper breast were buffish, with the rest of the underparts becoming gradually more whitish posteriorly. The mantle was uniform brown, contrasting with the darker wings and tail. The rump-feathers had distinct whitish tips (Fig. 2). The rectrices (Fig. 3) were dark

brown to blackish. The three outermost tail-feathers had white fringes, which did not extend onto the inner web and were clearly separated from the dark feather tips, not gradually merging into the darker areas. On the third outermost rectrix the white area was highly restricted to the fringe of the outer web. The greater and median wing-coverts had large whitish tips; pp3–10 had large white bases on the outer webs, forming a white wing-patch (Fig. 4).

Apart from Pied Flycatcher, including its Iberian subspecies *F. h. iberiae*, which was excluded already, any of the other three *Ficedula* is possible. Most adult Semi-collared Flycatchers have at least some white-tipped median coverts, but these are also found in many first-years of all species. Therefore, the white-tipped median coverts are not indicative of Semi-collared Flycatcher as they are insufficiently large to exclude Collared Flycatcher (Mild 1994b). Although most first-year male Collared Flycatchers have a female-like overall colour pattern, some have black rectrices and remiges as Semi-collared (Mild 1994b); again, Collared Flycatcher cannot be excluded based on this character. The length of the white primary patch in relation to the longest primary-covert was not measured, but the photograph showing the 5.1 mm-wide aluminium ring on the bird's leg (Fig. 1) suggests that it is larger than the maximum 3 mm for Semi-collared Flycatcher (Mild 1994b: Table 4) and therefore points to Collared Flycatcher. Furthermore, according to Mild (1994b: Table 3), the white patches at the bases of the primaries' outer webs start at p3 in 16% of first-year male Collared Flycatchers ($n=137$), as in the Mauritanian bird, but never on p3 in first-year male Semi-collared Flycatchers ($n=27$). However, the tip of p2 falls between pp5 and 6 in only 3% of Collared Flycatchers ($n=114$), but in 15% of Semi-collared Flycatchers ($n=160$) and in 74% of Pied Flycatchers ($n=185$; Mild 1994b: Table 1). The colour pattern of the tail also most likely excludes Semi-collared and normal Collared Flycatchers (Svensson 1992, Mild 1994a,b). However, the colour pattern of the Mauritanian bird's tail (large white areas on the outer web of the two outermost rectrices, a restricted white area on the third outermost rectrix and no white on the inner webs) is not described for adult or first-year male *Ficedula* flycatchers by Mild (1994a,b). The

Captions to figures on opposite page

Figure 3. *Ficedula* sp., Tichit, Mauritania, 17 September 2004. The three outermost rectrices have white fringes that do not extend onto the inner web. The white area on the third outermost rectrix is restricted to the fringe of the outer web. The tip of p2 falls between p5 and p6 (V. Salewski)

Ficedula sp., Tichit, Mauritanie, 17 septembre 2004. Les trois rectrices externes ont des lisérés blancs qui ne s'étendent pas sur la vèxille interne. La zone blanche sur la troisième rectrice externe est confinée au liséré de la vèxille externe. Le bout de p2 tombe entre p5 et p6 (V. Salewski)

Figure 4. *Ficedula* sp., Tichit, Mauritania, 17 September 2004. The greater and median wing-coverts have large whitish tips, which is typical of adult Collared Flycatchers *F. albicollis*, but these are also frequently present on first-years of other *Ficedula*. Pp3–10 have large white bases to the outer webs characteristic of Collared Flycatcher and Atlas Flycatcher *F. speculigera* (V. Salewski)

Ficedula sp., Tichit, Mauritanie, 17 septembre 2004. Les grandes couvertures alaires et les couvertures moyennes ont des larges bouts blancs, typiques de Gobemouches à colliers *F. albicollis* adultes, mais ceux-ci sont aussi fréquemment présents sur des individus de première année d'autres gobemouches du genre *Ficedula*. Les rémiges p3–10 ont de larges bases blanches aux vèxilles externes, caractéristiques du Gobemouche à collier et du Gobemouche de l'Atlas *F. speculigera* (V. Salewski)

pattern of the nape and rump-feathers is a further important character to distinguish *Ficedula* flycatchers (Svensson 1992, Mild 1994b). The bird from Tichít (Fig. 2) lacked the anchor-shaped white pattern on these feathers characteristic of Collared Flycatcher. Absence of this pattern could suggest either Semi-collared or Pied Flycatcher (Mild 1994b), but such a pattern is also difficult to see in specimens of first-year Collared Flycatchers held in the Naturhistorisches Museum Basel (pers. obs.).

In fact, there are characters in the Tichít bird which exclude all three discussed species. The large white patch at the base of the primaries definitely excludes Pied Flycatcher, although patterns on the rectrices, neck and rump-feathers and position of the tip of p2 may suggest this species. Semi-collared Flycatcher is excluded by the position at which the white bases of the outer webs of the primaries start, and by the tail pattern, though it cannot be excluded by the colour pattern of the neck and rump-feathers. According to the shape and position of the white patches at the bases of the primaries, the bird might be a Collared Flycatcher, but this unlikely, because of the position of the tip of p2 and the tail pattern. Most of these characters are, however, very variable within a species (Mild 1994a,b) and an odd pattern may always occur, along with the possibility of hybrids between Pied and Collared Flycatchers (Svensson & Mild 1992).

Atlas Flycatcher has not been discussed thus far and the problem is that there are hardly any descriptions available in the literature, especially of first-years. Hartert (1910) described some characters of Atlas Flycatcher also found in the Mauritanian bird, e.g. that the white bases of the primaries occur occasionally from p3 (usually from p4) and that p5 is distinctly longer than p2, but also that the rectrices are mostly all black and that the outermost tail-feathers only rarely have white to a large extent on the outer web. It is, however, not indicated whether these characters have a general value or are only found in certain age or sex classes. Curio (1960) investigated six adult males in breeding plumage. In three the white bases of the primaries started on p3, p2 was always shorter than p5, but again only one had some white on the rectrices (on three feathers on the right side and two feathers on the left side). Svensson (1992) emphasises the similarity of some

characters of Atlas and Collared Flycatchers, namely, again, that the white primary patch can start on p3 and that the white patch formed by the white bases of the primaries can reach 4–9 mm beyond the longest primary-coverts in adult males, but also that p2 apparently always falls between p5 and p6 in Atlas Flycatcher. Furthermore, characters which are mentioned as similar to Collared Flycatcher are the all-black tail in adult males and the darker upperparts and wing-feathers of Atlas Flycatcher compared to Pied Flycatcher, but no characters of first-years are mentioned.

From the above, the bird from Tichít could be an Atlas Flycatcher. The colour pattern of the rectrices is a questionable character, but this has not been described for first-year Atlas Flycatcher yet, and the variability of this character is unknown. Another feature not described for first-year *Ficedula* flycatchers by Mild (1994b) and not visible in any of the photographs he presents (e.g. Plates 9, 11 and 14) is the distinct white tips to the rump-feathers of the bird from Tichít, although adult male Collared Flycatchers can have white feathers in the rump.

Apart from the description, there is circumstantial evidence that the bird could be an Atlas Flycatcher, aside of being an atypical vagrant Collared Flycatcher or a hybrid Pied × Collared Flycatcher. Although Atlas Flycatchers are scarce breeders in Morocco, they are locally common in the Western Middle Atlas (Thévenot *et al.* 2003). They are thought to migrate across the Sahara and thus pass through Mauritania. The Tichít bird would be the first record of the species for the country, but this is probably due to identification problems. This may also hold true for all of West Africa with respect to potential migration routes and wintering grounds of Atlas Flycatcher, which remain unknown. More data are needed to separate Atlas from Collared Flycatcher, both in the field and in the hand, and to identify hybrids e.g. between Pied and Collared Flycatchers, a possibility which also cannot be eliminated for the bird from Tichít.

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Mangrove Kingfisher *Halcyon senegaloides* inland in eastern Zambia

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Martin-chasseur des mangroves *Halcyon senegaloides* en Zambie orientale. Un Martin-chasseur des mangroves *Halcyon senegaloides* a été observé dans la vallée de la Luangwa en Zambie orientale en septembre-octobre 2004 et 2005. Il s'agit de la donnée la plus continentale à ce jour. Cette période coïncide avec la saison de reproduction et pose à nouveau la question d'une hybridation possible avec l'espèce la plus proche, le Martin-chasseur du Sénégal *H. senegalensis*.

Summary. A Mangrove Kingfisher *Halcyon senegaloides* photographed in the Luangwa Valley in eastern Zambia is by far the furthest inland yet known, and raises again the possibility of breeding birds being in contact with the closely related Woodland Kingfisher *H. senegalensis*, and perhaps hybridising.

On 23 October 2004 DT observed and photographed a *Halcyon* kingfisher which possessed all the characters of Mangrove Kingfisher *H. senegaloides*, at Kasikezi lagoon, south of Nsefu camp, in the South Luangwa National Park, eastern Zambia (12°56'S 31°54'E). This confirmed her suspicion regarding a bird seen less well, at some distance, in September. In that year she saw it on another three days, the last time on 30 October (when her safaris in the area ended for the season). On 7 September 2005 the bird was again

seen in the same place, and thereafter several times a week, up to and including 26 October, when the arrival of large numbers of Great White Pelicans *Pelecanus onocrotalus* may have prompted it to move. There was no further sightings up to 1 November, the end of the 2005 safari season. Better photos were obtained (see Fig. 1), and the identification was confirmed in 2005 by other observers, including Robin Pope. This locality is at least 750 km north-west of the nearest point on the East African coast, and on a river that is on the western side of a watershed.

Field notes were made in collaboration with Robin Pope. It was a kingfisher the size of a



Figure 1. Adult Mangrove Kingfisher *Halcyon senegaloides*, South Luangwa National Park, Zambia, 30 September 2005. Note the heavy, deep-based, mainly red bill, the black mark not extending behind the eye and the grey-brown crown. The very short tail appears abnormal, suggesting the feathers may have been growing (Deb Tittle) Adulte Martin-chasseur des mangroves *Halcyon senegaloides*, Parc National du Sud Luangwa, Zambie, 30 septembre 2005. Noter l'épaisseur du bec, presque entièrement rouge, le fait que la marque noire ne s'étend pas derrière l'œil et la calotte gris-brun. La très courte queue paraît anormale et semble indiquer que les rectrices étaient en train de pousser (Deb Tittle)



Figure 2. Adult Senegal Kingfisher *Halcyon senegalensis*, South Luangwa National Park, Zambia, 20 November 2004. Note the black on the lower mandible, the thin black wedge behind the eye and the grey crown faintly washed blue (Alex Paul)

Adulte Martin-chasseur du Sénégal *Halcyon senegalensis*, Parc National du Sud Luangwa, Zambie, 20 novembre 2004. Noter le noir sur la mandible inférieure, le mince trait noir derrière l'œil et la calotte grise faiblement lavée de bleu (Alex Paul)

Woodland Kingfisher *H. senegalensis*, but with a completely red bill which appeared larger than that of a Woodland. The bill was reminiscent of a kookaburra *Dacelo* sp., being rather deep-based in the centre where it almost did not close, with black spiky ends at the tip of both lower and upper mandibles. The black slash through the eye did not extend behind it. The electric blue of the upperparts was similar to Woodland Kingfisher; head and chest were entirely smoky grey (whereas the race of Woodland Kingfisher occurring in Zambia, *H. s. cyanoleucus*, has the grey crown faintly washed with blue). Tail very short, barely extending beyond the wingtips. Legs appeared brownish. The underwing-coverts were occasionally glimpsed as the bird flew, and showed a black mark. The bird was heard to call following a heavy storm on 28 September: it was a striking noise, slightly similar to that of Woodland Kingfisher (an abundant breeder at this time in the Luangwa Valley), but jerky and more strident. The call was compared by DT to those presented by Gibbon (2003), and was considered identical to the second phrase of Mangrove Kingfisher.

The bird did not appear to be nesting and was apparently unmated, never being seen with any other. It favoured shady perches in a *Capparis tomentosa* or fallen trees in or beside the water. It still-hunted from perches 1 m above the lagoon, and was seen to catch a small fish and a frog.

Distribution of Mangrove Kingfisher

Current literature would suggest that the nearest locality to the Luangwa Valley, and hitherto the furthest inland, is Sena, on the lower Zambezi in Mozambique (Fry *et al.* 1988, 1992). Details of this locality have not been published; according to Hanmer (1984) this is based on a plot on the map in Fry (1978). However, it seems likely that plot (as far as can be judged on a small-scale map) refers to the sight record from Mopeia at 17°58'S 35°42'E (Hanmer 1976), and in the absence of further evidence we suggest the occurrence at Sena requires confirmation. Although Hanmer (1989) admitted that 'up to 1984 I was not aware of all the plumage differences between these two closely related kingfishers,' she believes it was correctly identified, and adds that she did not notice any unusual *H. senegalensis* at Mopeia (D. Hanmer *in litt.* 2005). This record may be correct, as the nearest confirmed record is from Inhamintanga (M. P.

S. Irwin *in Benson 1982, Hanmer 1984*), inland from the Lower Zambezi in Mozambique, at 18°13'S 35°10'E (c.650 km south-east of Nsefu in the Luangwa Valley, and 125 km inland).

In South Africa records of Mangrove Kingfisher have been claimed from as far as 400 km inland in Kruger National Park, but they are considered by Tarboton *et al.* (1987) to be unconfirmed, in view of the known identification problems.

There is no evidence that birds range very far inland in East Africa. All Important Bird Areas in Tanzania from which there are definite records are coastal (Baker & Baker 2002). In Kenya, Mangrove Kingfisher occurs principally in the coastal lowlands with rainfall of more than 500 mm p.a., where it 'extends quite far inland' (Lewis & Pomeroy 1989), though no localities are given. The furthest inland on the map in Lewis & Pomeroy (1989) would seem to be the lower Tana River; Andrews *et al.* (1975) found it there while they were based at Hewani (02°15'S 40°10'E), c.60 km from the coast. No inland records are specifically mentioned by Britton (1980), followed by Short *et al.* (1990). Nor is it clear how far inland the northern populations in Somalia might range, though the map in Ash & Miskell (1998) suggests this might be some 70 km, on the lower Jubba River. The known distribution of Mangrove Kingfisher is plotted in Fig. 3.

Variation in Woodland Kingfishers

Woodland Kingfisher normally has just the upper mandible red, the lower being black, whereas in Mangrove Kingfisher the entire bill is red (apart from the very tip). Changes of bill colour with age in *H. senegalensis* are discussed by Milstein (1962). Hockey (1997) claims that some Woodland Kingfishers do have 'all-red bills', but no reference is given and none of the aberrant birds reported by Fry (1983) and Hanmer (1989) had completely red bills.

Examination of several hundred museum specimens of Woodland Kingfisher has shown that traces of red on the lower mandible occur only rarely, and vary in extent (Fry 1983). The occurrence of no fewer than 14 individuals in the Lower Shire Valley with some red on the lower mandible (Hanmer 1989) has raised the question of whether or not there is an influence of Mangrove Kingfisher, perhaps through hybridisation. The

occurrence of a bird far inland in eastern Zambia with all the characters of pure Mangrove Kingfisher suggests that the two species may well come into contact when breeding, and further observation might well prove that hybridisation occurs. It is hoped that observers in areas where both do or might occur will pay careful attention to the issue.

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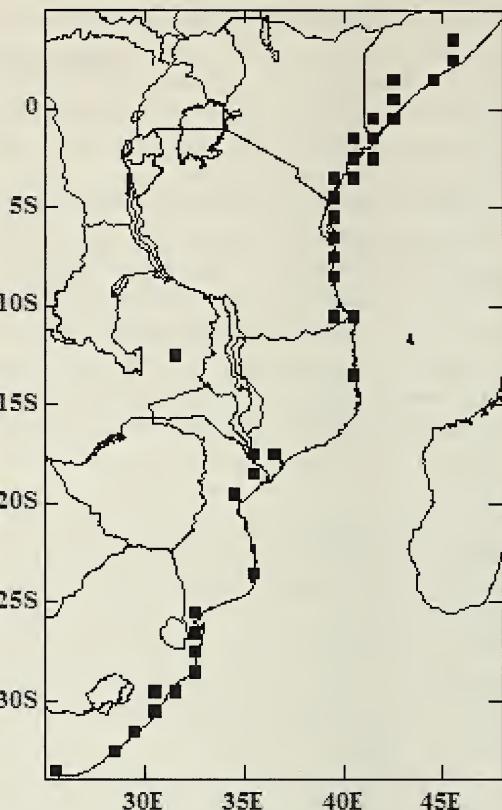


Figure 3. Distribution of Mangrove Kingfisher *Halcyon senegaloides* (R. J. Dowsett)

Répartition du Martin-chasseur des mangroves *Halcyon senegaloides* (R. J. Dowsett)

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Pelagic birding trips in the southern Mozambique Channel

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Voyages ornithologiques dans le sud du Canal de Mozambique. Deux voyages ornithologiques ont été organisés dans le sud du Canal de Mozambique avec des navires de croisière affrétés, en février 1997 et en novembre 2005. Bien que l'objectif principal était de donner l'occasion à des 'cocheurs' régionaux d'observer des oiseaux de mer tropicaux à l'intérieur des eaux d'Afrique australe, ces voyages ont néanmoins fourni des nouvelles données sur la distribution et le nombre des oiseaux de mer au large du KwaZulu-Natal septentrional et du Mozambique méridional en été. La Sterne fuligineuse *Sterna fuscata* était l'espèce la plus abondante au cours des deux voyages; elle était commune au sud de son aire de répartition habituelle. De petits nombres de Sternes bridées *S. anaethetus* étaient associés à des groupes de Sternes fuligineuses en novembre 2005, indiquant que cette espèce pourrait être plus commune dans le sud du Canal de Mozambique qu'on ne le pensait. Des migrants paléarctiques, notamment le Puffin cendré *Calonectris diomedea* et le Labbe à longue queue *Stercorarius longicaudus*, étaient communs en février 1997, mais pas en novembre 2005, probablement parce qu'ils étaient encore en train d'arriver dans la zone après avoir fait le tour du Cap. Le voyage de novembre est allé plus au nord que celui de février, et a quitté les eaux de l'Afrique australe pour naviguer autour de l'île Europa. Ainsi, beaucoup plus d'espèces tropicales ont été observées. Plusieurs Pétrels de Jouanin *Bulweria fallax* ont été identifiés dans le Canal à l'est de Inhambane, Mozambique; ceci ne constitue que la troisième donnée pour cette espèce dans les eaux d'Afrique australe. La quatrième donnée du Pétré de Barau *Pterodroma baraui*, vu au large du KwaZulu-Natal septentrional, constitue probablement l'observation la plus intéressante de ces voyages.

Summary. Two birding trips were made in the southern Mozambique Channel, in February 1997 and November 2005. Geared largely to viewing tropical seabirds within southern African waters for regional listers, they nonetheless provided some novel insights into the summer distribution and abundance of seabirds off northern KwaZulu-Natal and southern Mozambique. Sooty Terns *Sterna fuscata* were the most abundant species on both trips, and were common south of their generally accepted range. Small numbers of Bridled Terns *S. anaethetus* were associated with the Sooty Tern flocks in November 2005, suggesting this species may be more common than previously thought in the southern Mozambique Channel. Palearctic migrants, notably Cory's Shearwaters *Calonectris diomedea* and Long-tailed Skuas *Stercorarius longicaudus*, were common on the February trip, but not in November, presumably because they were still moving into the area after moving around the Cape. The November trip reached further north and ventured outside southern African waters around Europa Island. As a result, many more tropical species were seen. Several Jouanin's Petrels *Bulweria fallax* were observed east of Inhambane, Mozambique, only the third time this species has been recorded in southern African waters. The highlight was probably the fourth record of Barau's Petrel *Pterodroma baraui*, seen off northern KwaZulu-Natal.

Due to its position bordering one of the world's most dynamic areas of ocean, southern Africa boasts an exceptional diversity of seabirds, with some 112 species recorded from the region, almost one-third of all seabirds. Most species occur in the productive waters associated with the Benguela upwelling region and the Agulhas retroflexion south and west of Africa. However, smaller numbers of largely tropical seabirds occur in the Mozambique Channel. For some time birders

have had the chance to pursue southern seabirds on birding trips operating from Cape Town—mainly one-day charters on small boats out of Simonstown or Hout Bay (see Cohen *et al.* 2001), though a few longer charters have been arranged, including one mega-transect which went all the way south to the Prince Edward Islands and the Antarctic pack-ice.

Opportunities to see tropical species are more limited. Small numbers of day charters are

arranged annually out of Durban and Richard's Bay in KwaZulu-Natal, but the returns are limited, with small numbers of birds compared to Cape pelagics (Allan & Marchant 2000). Some birders have arranged private charters out of Mozambique, mainly from Bazaruto Island, but results generally have been poor due to the low abundance and patchy distribution of tropical seabirds. Another option has been to accompany ships on summer pleasure cruises into the Mozambique Channel from Durban. However, these trips do not venture far offshore because they visit inshore attractions such as Inhaca and Bazaruto Islands. Accordingly, there has been a demand for longer, dedicated pelagics into tropical waters, designed to visit areas likely to support concentrations of seabirds.

The first such trip was scheduled in 1997 when the *MV Symphony*, a large cruise liner oper-

ating out of Durban, was chartered by Deon Coetzee as a fund-raising exercise for the Middelpunt Wetland Trust. Carrying some 450 birders and their partners, the ship sailed on the afternoon of 26 February 1997 into a blustery south-west wind, with only a couple of Indian Yellow-nosed Albatrosses *Thalassarche (chlororhynchos) carteri* to be seen. It spent three full days at sea, before docking early on 2 March. At its furthest north it reached only 26°20'S, south of Maputo (Fig. 1), due to concerns about cyclone activity in the northern Mozambique Channel.

The second charter was made earlier in the summer season, to avoid a repeat of the cyclone threat. Trevor Hardaker and Andrew Sutherland arranged a trip on a smaller cruise liner, the *MV Madagascar*, for some 220 birders in November 2005. This six-night cruise planned to visit a succession of seamounts as well as Europa Island.

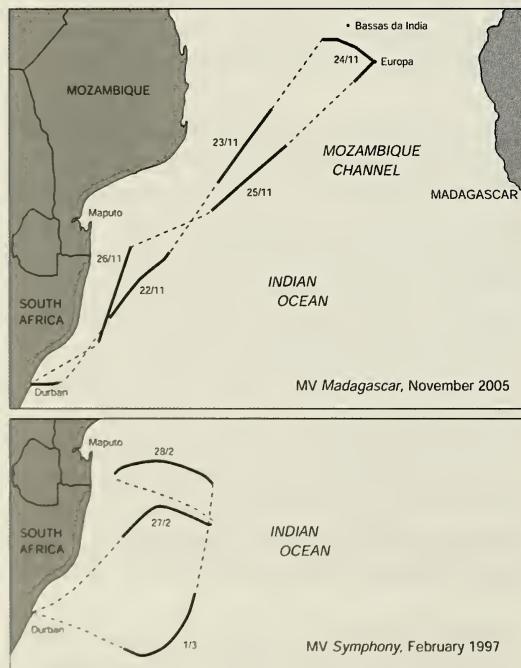


Figure 1. The approximate cruise tracks of the *MV Symphony* in February–March 1997 and *MV Madagascar* in November 2005. Bold lines indicate daytime tracks, dashed lines areas covered at night.

Trajets approximatifs du *MV Symphony* en février–mars 1997 et du *MV Madagascar* en novembre 2005. Les lignes continues indiquent les trajets parcourus de jour, les lignes interrompues les zones traversées la nuit.

Captions to figures on opposite page

Figure 2. Barau's Petrel *Pterodroma baraui* off northern KwaZulu-Natal, South Africa, 26 November 2005 (Trevor Hardaker)

Pétrel de Barau *Pterodroma baraui* au large du KwaZulu-Natal septentrional, Afrique du Sud, 26 novembre 2005 (Trevor Hardaker)

Figure 3. Adult Red-footed Booby *Sula sula* of the white-tailed brown morph typical of the Mozambique Channel, 24 November 2005 (Peter Ryan)

Fou à pieds rouges *Sula sula* adulte de la forme brune à queue blanche typique du Canal de Mozambique, novembre 2005 (Peter Ryan)

Figure 4. White-tailed Tropicbird *Phaethon lepturus* of the golden form, off Europa Island, 24 November 2005 (Neil Gray)

Phaéton à bec jaune *Phaethon lepturus* de la forme dorée, au large de l'île Europa, novembre 2005 (Neil Gray)

Figure 5. Adult male Greater Frigatebird *Fregata minor* over Hall Seamount, 24 November 2005 (Peter Ryan)

Frégate du Pacifique *Fregata minor* mâle au-dessus du Mont sous-marin de Hall, novembre 2005 (Peter Ryan)

Figure 6. Juvenile Greater Frigatebird *Fregata minor* over Hall Seamount, 24 November 2005 (Peter Ryan)

Frégate du Pacifique *Fregata minor* juvénile au-dessus du Mont sous-marin de Hall, novembre 2005 (Peter Ryan)

Figure 7. Unidentified flying fish photographed in the Mozambique Channel, 26 November 2005 (Peter Ryan)

Poisson volant non identifié photographié dans le Canal de Mozambique, novembre 2005 (Peter Ryan)



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Table 1. Estimated breeding populations of seabirds on Europa Island (after Le Corre & Jouventin 1997a, Le Corre & Safford 2001).

Tableau 1. Estimation des populations d'oiseaux de mer nicheuses sur l'île Europa (d'après Le Corre & Jouventin 1997a, Le Corre & Safford 2001).

Species	No. of breeding pairs
Tropical Shearwater <i>Puffinus (lherminieri) bailloni</i>	50–100
Red-footed Booby <i>Sula sula</i>	2,800–3,800
Red-tailed Tropicbird <i>Phaethon rubricauda</i>	3,000–4,000
White-tailed Tropicbird <i>Phaethon lepturus</i>	500–1,000*
Greater Frigatebird <i>Fregata minor</i>	700–1,100
Lesser Frigatebird <i>Fregata ariel</i>	1,000–1,200
Caspian Tern <i>Sterna caspia</i>	10–15
Sooty Tern <i>Sterna fuscata</i>	500,000–1,000,000

*probably too low; see Le Corre & Jouventin (1999)

(22°20'S 40°20'E), the southernmost island in the Mozambique Channel (Fig. 1) and an important breeding site for large numbers of seabirds (Table 1). Seamounts were targeted as likely areas of higher bird densities, because localised upwellings of nutrient-rich bottom waters occur downstream from seamounts. The seamounts targeted were the Almirante Leite Banks and Hall Table Mount and Jaguar Seamount. In October 2004, Andrew Sutherland had flown over the Almirante Leite Banks in a light plane and observed a marked concentration of seabird activity relative to adjacent waters. Unfortunately, the ship's departure was delayed on 21 November, and with strong headwinds further slowing our progress, we failed to reach the Almirante Leite

Table 2. Approximate numbers of seabirds seen each day from pelagic cruises off northern KwaZulu-Natal and southern Mozambique in February–March 1997 and November 2005. * SM = Hall and Jaguar Seamounts.

Tableau 2. Nombre approximatif d'oiseaux de mer observés chaque jour pendant les croisières pélagiques au large du KwaZulu-Natal septentrional et du Mozambique méridional en février–mars 1997 et novembre 2005.

* SM = monts sous-marins de Hall et Jaguar.

Species	MV Symphony					MV Madagascar				
	27 Feb	28 Feb	1 Mar	21 Nov	22 Nov	23 Nov	SM*	Europa	25 Nov	26 Nov
Shy Albatross <i>Thalassarche cauta</i>									2	
Black-browed Albatross <i>Thalassarche melanophrys</i>				1						
Indian Yellow-nosed Albatross <i>Thalassarche (chlororhynchos) carteri</i>				2						
Great-winged Petrel <i>Pterodroma macroptera</i>			25	15	120	10			50	50
Barau's Petrel <i>Pterodroma baraui</i>			1							
White-chinned Petrel <i>Procellaria aequinoctialis</i>			1	1	2					5
Jouanin's Petrel <i>Bulweria fallax</i>						1			1–2	
Cory's Shearwater <i>Calonectris diomedea</i>	35	10	30							
Wedge-tailed Shearwater <i>Puffinus pacificus</i>		1			1					
Flesh-footed Shearwater <i>Puffinus carneipes</i>	6		8							
Tropical Shearwater <i>Puffinus (lherminieri) bailloni</i>			2			1				
Wilson's Storm-petrel <i>Oceanites oceanicus</i>								2	1	
storm-petrel sp. <i>Oceanodroma</i> sp.			1				1–2			
Cape Gannet <i>Morus capensis</i>	2									
Red-footed Booby <i>Sula sula</i>				1	2	200	300			
Red-tailed Tropicbird <i>Phaethon rubricauda</i>	1	2		1	3	20	10	4	3	
White-tailed Tropicbird <i>Phaethon lepturus</i>					2	10	40	1	1	
Greater Frigatebird <i>Fregata minor</i>						25	25	2		
Lesser Frigatebird <i>Fregata ariel</i>						2	8			
frigatebird sp <i>Fregata</i> sp.						20	60	3		
Subantarctic Skua <i>Catharacta antarctica</i>	1			1		1	1			
Pomarine Skua <i>Stercorarius pomarinus</i>					1		1	1	1	
Arctic Skua <i>Stercorarius parasiticus</i>	1	1		1		1	1	1		
Long-tailed Skua <i>Stercorarius longicaudus</i>	25	12	20	1		4				
Roseate Tern <i>Sterna dougallii</i>						2				
Sooty Tern <i>Sterna fuscata</i>	800	200	150	200	700	400	100	350	30	
Bridled Tern <i>Sterna anaethetus</i>						1		7		

Banks in daylight on either the northbound or southbound legs (Fig. 1). The rest of the cruise ran smoothly, passing over Hall Table Mount and Jaguar Seamount on the morning of 24 November; circumnavigating Europa Island that afternoon, and returning to Durban early on 27 November. The western part of Hall Table Mount is within 200 nautical miles of the Mozambican coast, but most birds seen on 24 November were outside southern African waters.

Bird counts

Initial plans to count birds using instantaneous scans within a fixed-width transect, as routinely done in the Southern Ocean (Tasker *et al.* 1984), were soon abandoned given the very low numbers of birds encountered. Accordingly, a log of the approximate total numbers of birds seen was kept. This is biased by differences in detectability with range from the ship, but it gives some indication of the relative abundance of the different species. Observers were on deck throughout daylight hours, c.13 hours per day. Daily totals are summarised in Table 2, with counts on 24 November divided into birds seen over Hall and Jaguar, and the remainder seen around Europa Island. Unfortunately, few birds were seen over Hall Table Mount, with most of the activity associated with Jaguar Seamount, outside southern African waters.

Albatrosses (Diomedeidae)

Only a few albatrosses of three common species were seen, all in KwaZulu-Natal waters within one day of Durban (Table 1). With the exception of one Indian Yellow-nosed Albatross, all were juveniles or immatures.

Petrels and shearwaters (Procellariidae)

Great-winged Petrels *Pterodroma macroptera* were by far the most abundant petrels on both trips, with a mean 30 seen each day, and a peak of 120 on 22 November. They were widespread in November, occurring in all but the most northerly waters, whereas they were only seen offshore in February–March. They occurred singly or in small groups, especially during calm weather when they often roosted in groups. Cory's Shearwater *Calonectris diomedea* was the next most abundant, but was only seen in February–March. In 2005, the first Cory's Shearwaters were observed off

Cape Town only in mid-November, as is typical of most years (JG pers. obs.), suggesting that it was too early for them to have penetrated far into the Indian Ocean. Up to 70 have been recorded along the shelf-break on a day pelagic off Richards Bay, KwaZulu-Natal, in December (AS pers. obs.). They usually occurred in small groups.

Other shearwaters were scarce, with only small numbers of Flesh-footed *Puffinus carneipes* (February–March only), Wedge-tailed *P. pacificus* and Tropical Shearwaters *P. lherminieri* *bailloni* seen (the latter a recent split from the formerly wide-ranging Audubon's Shearwater *P. lherminieri*: Austin *et al.* 2004). White-chinned Petrels *Procellaria aequinoctialis* were confined to relatively southern latitudes, and were the most consistent ship-followers. Two to three Jouanin's Petrels *Bulweria fallax* were seen in Channel waters east of Inhambane in November, in the same general area where the two previous records for the region were made (Hockey *et al.* 2005). They were identified by their smaller size than Great-winged Petrels, with much longer, more rakish wings. Confusion with Bulwer's Petrel *B. bulwerii* was unlikely, given the birds' dashing flight, rising up to 5 m above the water in fairly strong tail winds. However, possibly the best bird was a very obliging Barau's Petrel *Pterodroma baraui* that was found roosting on the water with a Great-winged Petrel off northern KwaZulu-Natal, on 26 November, at 27°29'S 33°52'E. It was flushed by the approaching ship and then circled behind it for several minutes (Fig. 2). This is the fourth record for the region (Sutherland 2005), though the first two records (Lambert 2001) were unsubstantiated and viewed with some scepticism prior to the more recent records.

Storm-petrels (Hydrobatidae)

Disappointingly few storm-petrels were observed. In November, the ship attracted a couple of Wilson's Storm-petrels *Oceanites oceanicus*. Other storm-petrels remained frustratingly distant. In February 1997 one seemingly all-dark *Oceanodroma* was seen briefly, and in November 2005 another all-dark bird was seen more than 800 m from the ship, feeding in association with a large mixed-species flock of boobies and terns over Jaguar Seamount. The latter bird was thought to be either a Matsudaira's *O. matsudairae* or

Swinhoe's Storm-petrel *O. monorhis*. However, shortly afterwards two birds seen behind the ship were thought to be Bulwer's Petrels.

Gannets and boobies (Sulidae)

Red-footed Booby *Sula sula* was the second-most abundant species during the November trip, but they were scarce away from the general vicinity of their breeding colony on Europa Island. Only two were seen in southern African waters, both of which joined the ship in the afternoon and roosted aboard, leaving early the following morning. On Jaguar Seamount and around Europa they typically occurred in flocks of 5–50 birds. Almost all of the adults were white-tailed brown morphs, which is the predominant morph breeding on Europa Island (Fig. 3). Two white-morph birds were seen in a large feeding flock close to the island. Up to 12 birds followed the ship as we approached Europa, jockeying to perch on the foremast, and attempting to catch flying fish (Exocetidae). On leaving Europa, one booby flew alongside the bow and caught at least five fish in 90 minutes, taking four flying fish in flight and one during a shallow plunge-dive. Cape Gannets *Morus capensis* were only seen close to Durban.

Tropicbirds (Phaethontidae)

Two species were seen, both of which breed on Europa Island (Table 1). They occurred singly or in pairs, sometimes in loose association with other seabirds. Red-tailed Tropicbirds *Phaethon rubricauda* were more widespread, and this was the only species seen in February. However, in November four White-tailed Tropicbirds *P. lepturus* were observed in southern African waters, including one off northern KwaZulu-Natal. At least one was a golden morph typical of the newly described *P. l. europae* from Europa Island (Fig. 4), where 71% of birds have golden tail-streamers and a peachy-yellow wash to the body, and a further 27% have golden tail-streamers (Le Corre & Jouventin 1999). This is probably the first record of this subspecies from southern African waters (Hockey *et al.* 2005). Close to Europa Island, White-tailed Tropicbirds outnumbered Red-tailed Tropicbirds.

Frigatebirds (Fregatidae)

Frigatebirds were only encountered relatively far north in the Mozambique Channel. A large proportion of birds remained too distant to identify

to species level with certainty. Greater Frigatebirds *Fregata minor* (Figs. 5–6) were most abundant, with the only confirmed Lesser Frigatebirds *F. ariel* seen outside southern African waters over Jaguar Seamount and around Europa Island.

Skuas (Stercorariidae)

Prior to the February 1997 cruise, Long-tailed Skuas *Stercorarius longicaudus* were considered vagrants to KwaZulu-Natal and unknown in Mozambique waters (Ryan 1989). We were therefore rather surprised to find the species relatively common in oceanic waters off both northern KwaZulu-Natal and southern Mozambique (Table 2). Only a few were observed in November, suggesting that it was too early for large numbers to have penetrated the Indian Ocean, though passage of Long-tailed Skuas around the Cape occurs from early October (Hockey *et al.* 2005), earlier than Cory's Shearwater. This suggests that birds in the south-west Indian Ocean mainly come around the Cape, rather than taking a more direct route via the east coast of Africa. Small numbers of Arctic *S. parasiticus* and Pomarine Skuas *S. pomarinus* were also seen, with Pomarine Skuas occurring further north than their mapped range in Hockey *et al.* (2005). Subantarctic Skuas *Catharacta antarctica* were observed close inshore at Durban and associated with large seabird aggregations at Jaguar Seamount and Europa Island, where there is a small migrant population that specialises on kleptoparasitising Red-footed Boobies (Le Corre & Jouventin 1997b). One was observed on the water next to a dead booby near Europa Island.

Terns (Sternidae)

Sooty Tern *Sterna fuscata* was the most abundant species observed, often occurring in large flocks of up to 120. They were usually encountered flying 5–30 m (rarely to 100 m) above the sea, typically dropping close to the sea only when feeding. However, several flocks were encountered roosting on the water, contrary to the oft-repeated claim that they very rarely sit on the water as their plumage becomes waterlogged (Harrison 1985, Gochfeld & Burger 1996). Sooty Terns tended to avoid the ship during the day, seldom coming closer than 200 m, but at night sometimes flew low over the aft-deck calling, apparently attracted by the ship's lights. Numbers seen off northern KwaZulu-Natal on both trips confirm that this

species is much commoner in oceanic waters than previously thought (e.g. Harrison *et al.* 1997). Bridled Terns *S. anaethetus* are typically considered vagrants to the southern Mozambique Channel (Hockey *et al.* 2005), thus the small numbers observed in a few flocks of Sooty Terns in November 2005 were rather surprising. Others might have been overlooked in more distant groups of Sooty Terns. Apart from Greater Crested (Swift) Terns *S. bergii* close to Durban harbour, the only other terns seen were two Roseate Terns *S. dougallii* in a large mixed-species flock at Jaguar Seamount, which also included large numbers of Sooty Terns and Red-footed Boobies.

Landbirds

A surprising feature of the November 2005 cruise was the large number of landbirds observed, especially on the northward leg of the trip, during which there were strong northerly winds on 21–22 November. On 21 November, an unidentified buzzard *Buteo* sp. was observed soaring past the ship some 20 miles offshore. The following day there was a juvenile Red-backed Shrike *Lanius collurio*, two Willow Warblers *Phylloscopus trochilus*, an Icterine Warbler *Hippolais icterina* and two Barn Swallows *Hirundo rustica* aboard, and two Amur Falcons *Falco amurensis*, an African Paradise Flycatcher *Terpsiphone viridis* and a Cinnamon-breasted Bunting *Emberiza tahapisi* flew around the ship. On 23 November a Common House Martin *Delichon urbicum* circled the ship at first light, and was later joined by up to three Barn Swallows. There were also two Ruddy Turnstones *Arenaria interpres* and a juvenile Sooty Falcon *Falco concolor*, which some thought showed characters of Eleonora's Falcon *F. eleonorae*. There were no landbirds on 24 November, with only a single Whimbrel *Numenius phaeopus* on 25 November and a very tired looking Hoopoe *Upupa epops* on 26 November.

Cetaceans and others

During the 1997 trip, a Sperm Whale *Physeter macrocephalus* and two possible Arnoux's Beaked Whales *Berardius arnuxii* were observed on 27 February, and 30 Pantropical Spotted Dolphins *Stenella attenuata*, five Striped Dolphins *S. coeruleoalba* and 20 Bottle-nosed Dolphins *Tursiops truncatus* were observed on 1 March. In 2005, Bottle-nosed Dolphins and Short-finned

Pilot Whales *Globicephala macrorhynchus* were the most abundant cetaceans, being observed on 21 and 24 November and 23, 24 and 26 November, respectively. Other species seen included Humpback Whales *Megaptera novaeangliae* close to Durban on 21 and 27 November, 80 Striped Dolphins and 2 Arnoux's Beaked Whales on 23 November, a very confiding pod of False Killer Whales *Pseudorca crassidens* on 25 November, more Striped Dolphins on 26 November, and Risso's Dolphins *Grampus griseus* on 25 and 26 November.

Fish are generally difficult to identify at sea, but we had several encounters that were sufficiently close for basic identification. In November 2005, we saw several Oceanic White-tip Sharks *Carcharhinus longimanus*, two hammerhead sharks *Sphyraena* sp., two marlins *Makaira* sp., one swordfish *Xiphias* sp., four Dorados *Coryphaena hippurus* and several schools of tuna *Thunnus* sp. Flying fish were common, with at least five species photographed, including one distinctive species which cannot be identified by ichthyologist Phil Heemstra. But perhaps the most exciting 'fish' seen was the flying squid *Sthenoteuthis oualanensis* which was seen on three days, with fairly large numbers on 26 November 2005. This amazing animal flies almost as far as a flying fish, jetting out of the sea backwards and gliding on mantle fins and cupped tentacles.

Discussion

The November 2005 trip proved highly successful, even though the largest numbers of tropical seabirds encountered were outside southern African waters. Perhaps its most disappointing feature was the small numbers and relatively poor showing of shearwaters. In comparison, the February 1997 trip yielded few tropical seabirds, in part because it barely ventured outside KwaZulu-Natal waters. However, in November 2005, several species were seen in these waters that were not observed in February, including White-tailed Tropicbird and Barau's Petrel. Whether this difference is seasonal remains to be tested, but it may be the case for Barau's Petrel. All four records from southern African waters have been in October–November (Hockey *et al.* 2005, this paper), possibly indicating movement into the southern Mozambique Channel at this time. It

coincides with the incubation period for Barau's Petrel, but it is perhaps more likely that birds in southern African waters are non-breeders. The bird seen in 2005 was not moulting. The confirmation of Barau's Petrel in southern African waters raises the possibility that Kurt Lambert's sightings of Tahiti Petrels *Pseudobulweria rostrata* off Maputo in November–December (Hockey *et al.* 2005), though seemingly unlikely given the species' known range, may yet be supported by further observations. More time at sea is needed to better understand the spatial and temporal variation in seabird abundance in the southern Mozambique Channel.

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Madagascar Red Owl *Tyto soumagnei* in Ankarana Special Reserve, Madagascar

Jacques van Esbroeck

L'Effraie de Soumagne *Tyto soumagnei* dans la Réserve Spéciale d'Ankarana, Madagascar. Cette note documente la première observation de l'Effraie de Soumagne *Tyto soumagnei* dans la Réserve Spéciale d'Ankarana, au nord de Madagascar, en octobre 1999. Cet oiseau, qui a été photographié à son dortoir, est connu pour passer la journée dans une galerie latérale d'une grotte assez profonde, un site certainement inattendu pour cette espèce forestière. De plus, *Tyto soumagnei* est normalement associée à la forêt ombragée sempervirente, alors que la végétation forestière à Ankarana est dominée par la forêt décidue sèche. Des lambeaux de forêt semi-sempervirente existent cependant dans quelques canyons ombragés.

Ankarana Special Reserve lies c.60 km south of Montagne d'Ambre National Park in northern of Madagascar, but is less well known than the latter area. It covers 18,225 ha and has an extensive karstic cave system (ZICOMA 2001), which I visited with colleagues on 11 October 1999. The main vegetation consists of dry deciduous forest, evergreen rainforest in the canyons, and palm woodland. While approaching a site known as 'Perte des trois rivières' ('where three rivers disappear,' Fig. 1), our local guide Sabri informed us of a Madagascar Red Owl *Tyto soumagnei* roosting by day in a deep cave, now completely dry. He climbed down the almost vertical wall of the cave—an open circular hole c.100 m in diameter and 50 m deep—and disappeared into a narrow lateral gallery at the bottom. He reappeared quickly, nodding affirmatively that the owl was present. He then flushed it from its hiding place and the bird perched for c.2 minutes on the lower part of the opposite wall. Eleon Rabemananjara managed to take four pictures with my small camera, some at less than 1 m (Fig. 2). Because of the flash, the owl appears less uniformly deep red than it was in the field.

The presence of *Tyto soumagnei* at Ankarana was mentioned recently for the first time (Cardiff & Befourouack 2003, Thorstrom & René de Roland 2003), but full details have not been published and I am unaware of reports prior to October 1999. This poorly known species is considered Endangered (BirdLife International 2004): it is normally associated with rainforest and it is certainly unusual to find the species in an area where deciduous forest is dominant, with dense

semi-evergreen forest confined to sheltered canyons (Cardiff & Befourouack 2003). In addition, the bird was found roosting in a situation more typical of Barn Owl *T. alba*. Indeed, this is the first such record of a Madagascar Red Owl roosting in a cave.

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Figure 1. 'Perte des trois rivières,' Ankarana Special Reserve/Réserve Spéciale d'Ankarana, 11 October 1999 (Jacques van Esbroeck)

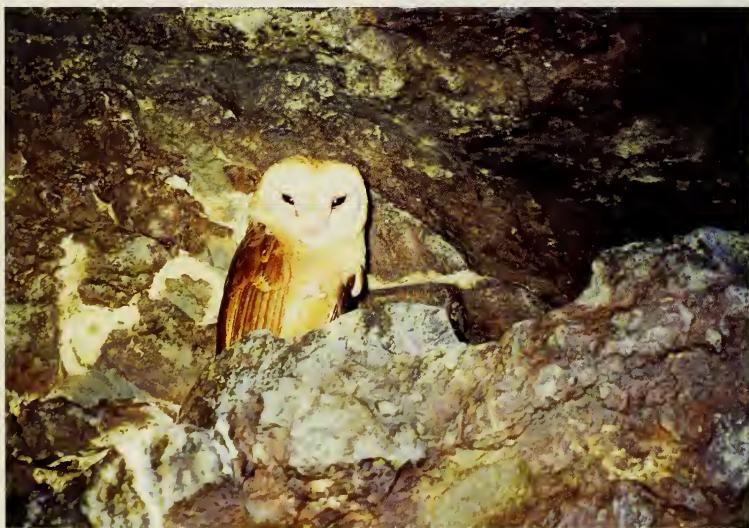


Figure 2. Madagascar Red Owl *Tyto soumagnei*, Ankarana Special Reserve, 11 October 1999 (Jacques van Esbroeck)
Effraie de Soumagne *Tyto soumagnei*, Réserve Spéciale d'Ankarana, 11 octobre 1999 (Jacques van Esbroeck)

First record of Oriental Honey Buzzard *Pernis ptilorhynchus* for Gabon and sub-Saharan Africa

William S. Clark^a and Patrice Christy^b

Première mention de la Bondrée orientale *Pernis ptilorhynchus* pour le Gabon et l'Afrique subsaharienne. Une Bondrée orientale *Pernis ptilorhynchus* a été observée et photographiée près de Tchimbélé, dans les Monts de Crystal, au Gabon ($10^{\circ}25' E$ $00^{\circ}38' N$), le 13 août 2004. Ceci constitue la première mention pour le Gabon de cette espèce paléarctique qui niche de la Sibérie jusqu'au Japon et hiverne principalement en Asie du Sud et du Sud-est. Récemment, des Bondrées orientales ont commencé à être notées au Moyen Orient et il se peut que des individus accompagnent des Bondrées apivores *P. apivorus* lors de leur migration vers l'Afrique. Il n'y a qu'une seule donnée antérieure pour l'Afrique continentale, de mai 1996, en Egypte.



Figure 1. Adult male Oriental Honey Buzzard *Pernis ptilorhynchus*, Monts de Crystal, Gabon, 13 August 2004; the tail appears rounded probably because the outer feathers are growing (W. S. Clark)

Bondrée orientale *Pernis ptilorhynchus*, mâle adulte, Monts de Crystal, Gabon, 13 août 2004; la queue apparaît arrondie, probablement parce que les rémiges extérieures sont en train de pousser (W. S. Clark)



Figure 2. (left) Juvenile African Harrier Hawk *Polyboroides typus*, The Gambia, March 1999; the underwing pattern is quite different from that of the bird in Fig. 1 (W. S. Clark)

Gymnogène d'Afrique *Polyboroides typus* juvénile, Gambie, mars 1999; le pattern sous-alaire est bien différent de celui de l'oiseau de la Fig. 1 (W. S. Clark)

Figure 3. (above) Adult Western Banded Snake Eagle *Circaetus cinerascens*, The Gambia, March 1999; the wings are shorter than that of the bird in Fig. 1, and the body is all dark. (W. S. Clark)

Circaète cendré *Circaetus cinerascens* adulte, Gambie, mars 1999; les ailes sont plus courtes que celles de l'oiseau de la Fig. 1, et le corps est entièrement sombre (W. S. Clark)

On 13 August 2004 we briefly observed and photographed what we initially thought was a European Honey Buzzard *Pernis apivorus* near Tchimbélé, Monts de Crystal, Gabon ($10^{\circ}25' E$ $00^{\circ}38' N$). However, upon reviewing the digital image (Fig. 1), we noticed that the bird lacked dark carpal patches on the underwings and had six, not five, long emarginated primaries ('fingers') and a dark tail with a broad white band. These are all field marks of Oriental Honey Buzzard *P. ptitorhynchus* (Forsman 1994, Clark 1999). European Honey Buzzards almost always have dark carpal patches, and always have five 'fingers' at the tips of the extended wings and pale tails with narrow dark bands (Forsman 1994, Clark 1999).

The bird had body plumage similar to that of a juvenile African Harrier Hawk *Polyboroides typus*, but with a tail pattern similar to an adult of that species. But the underwing pattern of the latter species (Fig. 2) differs in having broad dark tips to the outer primaries, even-width narrow dark bands on the secondaries, lacking a broad dark band on the trailing edge of the wing, and dark, not barred axillaries. The only other African raptor with a similar tail and underwing pattern is adult Western Banded Snake Eagle *Circaetus cinerascens*, but this species, which has not been recorded in Gabon, has relatively shorter, broader wings and an all-dark body, as well as five evenly spaced narrow dark bands on the secondaries (Fig. 3), very different from the Gabon bird in Fig. 1.

One reviewer suggested that the Gabon honey buzzard might be a hybrid between Oriental and European Honey Buzzards (see Forsman 1994, plate 15 for a photograph of a possible adult female hybrid between these species), based on the wings which appear narrow, and tail and underwing patterns which are intermediate. However, the bird in Fig. 1 is much more like the adult male Oriental Honey Buzzard in Plate 1 of Forsman (1994) than the adult male European Honey Buzzard in Plate 2. The wings of the Gabon bird (Fig. 1) appear narrow because it is flying away from the camera. The wings of the adult male Oriental Honey Buzzard in Plate 1 of Forsman (1994) appear to us to be the same width as the Gabon bird. We consider that the wing-width of the Gabon bird is not intermediate between the two honey buzzard species. The tail pattern of the Gabon bird is that of a pure adult male Oriental

Honey Buzzard, a dark tail with a broad white band, and shows no characters of European Honey Buzzard. Similarly, the underwing pattern of the Gabon adult male is within the range of individual variation shown by adult male Oriental Honey Buzzards in Plate 1 of Forsman (1994) and the five photographs in Morioka *et al.* (1995; Plates 14–16, 19 and 22). The Gabon bird has two narrow dark bands at the bases of the secondaries and inner secondaries, just like that of the adult male Oriental Honey Buzzard in Plate 1 of Forsman (1994). The adult male European Honey Buzzard in Plate 2 of Forsman (1994) has a different underwing pattern, with only one narrow dark band which does not extend onto the inner secondaries. Note that the Gabon bird has no dark in the carpal area, another character of Oriental Honey Buzzard; all adult European Honey Buzzards possess dark carpal patches. Further, the bird has the narrow dark throat stripes that are a character of Oriental Honey Buzzard not shown by European Honey Buzzard. As previously stated, the wingtips of the Gabon bird are identical to those of Oriental Honey Buzzard, with six long primaries on the wingtip. Specifically, p5 is much longer than p4 in this species, but only marginally longer in European Honey Buzzard. If the bird was a hybrid, then this and the characters discussed above might be expected to be intermediate.

Ours is the first record of Oriental Honey Buzzard for Gabon and sub-Saharan Africa. This Asian species, which is also known as Crested or Eastern Honey Buzzard, has been recorded in continental Africa just once, in Egypt in May 1996 (Baha el Din & Baha el Din 1997). The migratory northern race *orientalis* breeds from southern Siberia and northern Mongolia to North Korea and Japan, and migrates (from late August) to south and south-east Asia, Indonesia and the Philippines for the winter (Ferguson-Lees & Christie 2001). Small numbers have been observed and photographed at the Chokpak Pass, in eastern Kazakhstan, in autumn, in the company of European Honey Buzzards (Forsman 1994). Forsman (1994), and Baha el Din & Baha el Din (1997), speculated that a few individuals might join flocks of European Honey Buzzards and regularly straggle to Africa. Oriental Honey Buzzards have since been recorded on migration in the Middle East, including Israel (over 20 records

since 1994), Turkey, Saudi Arabia, the United Arab Emirates and Oman (Shirihai *et al.* 2000, Ferguson-Lees & Christie 2001, Eriksen *et al.* 2003, Richardson 2003). Three birds were claimed in Egypt during spring 2004 (S. Baha el Din *in litt.*). Juveniles of European and Oriental Honey Buzzards may remain in their winter quarters the following summer (Ferguson-Lees & Christie 2001). The 'early' date of the Gabon sighting and the incomplete tail moult suggest that the bird had indeed spent the northern summer in Africa.

Of the few Palearctic raptors recorded in Gabon, European Honey Buzzard is the most frequent, occurring throughout the country, from coastal savannas to inland forests, as well as in anthropomorphic habitats such as the edge of plantations. The species starts to arrive in late September and is numerous from mid October to March. Most observations are of lone birds, but they sometimes occur in twos or threes. Contrary to common lore, they can be quite vocal and utter their plaintive whistling calls, especially in February, prior to spring migration. Some remain in Gabon during the northern summer (late May–August), presumably juveniles remaining their first year on the wintering grounds. Bates collected a juvenile male in the Dja, southern Cameroon, a century ago in June. The few recoveries of ringed birds from Finland (3) and Germany (1) suggest European origins for European Honey Buzzards in Gabon.

Our observation confirms that a few Oriental Honey Buzzards may migrate into sub-Saharan Africa. Observers in the region should therefore scrutinise carefully all honey buzzards seen.

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Editorial comment.—Prior to submission, Bill Clark had sought opinions from a number of experts as to the identity of this most interesting raptor, all of whom were of the opinion that the bird was indeed an Oriental Honey Buzzard. Despite this, the paper generated more discussion than perhaps any other that has been submitted to *Bull. ABC*. Eventually, the photographs and text were circulated to 13 referees for comments, some of whom were experts on *Pernis* identification, and others (the majority) had extensive experience of Afrotropical raptors. A minority had reasonable familiarity with resident African species and honey buzzards. The majority of commentators were of the opinion that the bird was a *Pernis*, some of whom agreed that it was an Oriental Honey Buzzard though three thought that the Gabon raptor was an African Harrier Hawk *Polyboroides typus* in somewhat atypical plumage. One referee was of the opinion that the bird seemed to be a hybrid *Pernis apivorus* × *ptilorhynchus* and further espoused the belief that at least some of the now quite numerous claims of *P. ptilorhynchus* from

Israel in recent years also relate to hybrid individuals, based on their appearing to show 'mixed' characters. The zone of overlap between the two *Pernis* species in Russia is seemingly at most rather small, and has been vigorously disputed by some authoritative authors (Stresemann 1940, Stepanyan 1983, Gamauf & Haring 2004), but nonetheless other Soviet authors were already reporting hybrids many years ago (see citations in Stepanyan 1983). Others admit the presence of a zone of overlap, but contest that they do not interbreed (e.g. Kislenko 1974). It is clear that the issue of whether these two species of honey buzzards are hybridising is one that is far from resolved, and indeed given that *P. ptilorhynchus* has been postulated to be spreading west in recent years (Ferguson-Lees & Christie 2001) might either be considered increasingly likely or its incidence be increasing. Detailed field studies from relevant regions are clearly rather urgently required. The

editors wish to thank all those who expressed an opinion on this bird. Because of the wide circulation to which this note and the accompanying photographs were subjected, we will only consider publishing very detailed, and preferably illustrated, responses on the identity of the Gabon bird.

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First record of Dunlin *Calidris alpina* for Benin

Ben van Muyen

Première mention du Bécasseau variable *Calidris alpina* pour le Bénin. Deux à cinq Bécasseaux variables *Calidris alpina* en plumage adulte internuptial ont été observées dans les marais de Guézin, au Lac Ahémé, à environ 30 km de Grand Popo, près de la frontière du Togo, dans le sud Bénin (06°24'N 01°57'E). Ceci constitue la première donnée documentée pour le pays.

On the afternoon of 6 February 2003, Barend van Gemerden and I visited Guézin marshes, Lac Ahémé, c.30 km from Grand Popo, near the Togolese border in south Benin (06°24'N 01°57'E). The area comprises an estuary with tidal mudflats, coastal lagoons, marshes and saltpans. During our visit we observed the first Black-headed Gulls *Larus ridibundus* for the country (van Muyen 2005). We also saw several species of wader and subsequently realised that one of these had not been recorded previously in the country either.

Two rather dumpy shorebirds were foraging on exposed mud, picking and probing methodically. We instantly identified them as Dunlin *Calidris alpina*, a very common species on tidal mudflats of the Dutch Wadden Sea, where we watch waders regularly at all seasons. We observed them for c.10 minutes through 8 × 42 and 10 × 42 binoculars,

and a 20 × 65 telescope. A little later we found four more individuals on another patch of mud. All were in non-breeding plumage, being rather featureless with a plain, dull brownish-grey head and upperparts, a short, indistinct white supercilium, and white underparts with fine breast streaking forming a rather well-defined band. The longish, slightly decurved bill and the legs were black. Curlew Sandpiper *C. ferruginea*, the principal confusion species, has a longer, more decurved bill, longer legs, imparting a less dumpy appearance, and a more prominent supercilium.

This appears to be the first documented record of this Palearctic visitor for Benin. Although a table in Dodman & Taylor (1996), presenting the totals of waterbird counts undertaken in West Africa in January 1996, mentions 26 Dunlin for Benin, this exceptionally high figure has never

been documented and the record must be considered doubtful (the same table also mentions 120 Pied Avocet *Recurvirostra avosetta* for Benin, an incredible total which casts serious doubt on the reliability of other figures for the country). Dunlin has been recorded in Ghana and neighbouring Togo and Nigeria, where it is considered rare or a vagrant (Grimes 1987, Elgood *et al.* 1994, Cheke & Walsh 1996). It is not included in Dowsett's (1993) list for Benin, nor is it marked on the distribution maps in Borrow & Demey (2001, 2004), and no records have been reported since (P. Claffey *in litt.* 2005). In West Africa, the species occurs mainly on the coast from Mauritania to Guinea, with small numbers or singles occasionally found inland, mostly in the central Niger delta in Mali (Borrow & Demey 2001).

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Ron Demey assisted in writing this note. Patrick Claffey commented on a draft and provided useful information.

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First record of Pink-billed Lark *Spizocorys conirostris* for Angola

Michael S. L. Mills

Première mention de l'Alouette à bec rose *Spizocorys conirostris* pour l'Angola. Une Alouette à bec rose *Spizocorys conirostris* a été observée le 8 août 2005 au sud de l'Angola, le long de la route Ondjiva–Lubango à 16°44'S 15°08'E, 70 km au nord de la frontière namibienne. Quoique la présence de l'espèce dans le pays était suspectée, elle n'avait jamais été confirmée; ceci constitue donc la première donnée documentée pour l'Angola.

Pink-billed Lark *Spizocorys conirostris* is confined to southern Africa, from western Zambia south. It occurs from the eastern half of Namibia and western Botswana to central and eastern South Africa (Keith *et al.* 1992). Although it has been recorded very close to the Angolan border in north-central Namibia (Dean 1997) and is listed conditionally by Dowsett (1993) for southern Angola based on a single locality in Hall & Moreau (1970), its occurrence in Angola has not been confirmed. It was listed as likely to occur by Dean (2000).

On 8 August 2005, I observed two Pink-billed Larks along the main Ondjiva–Lubango road at 16°44'S 15°08'E, 70 km due north of the Namibian border. My attention was drawn to their presence by their characteristic musical trilled flight-call (Dean 2005). The birds landed at a pool near the road to drink, allowing me to confirm the identification visually: small, short-tailed larks with buff-brown underparts and short, conical, pink bills. The surrounding area consisted of short, heavily grazed grassland near a small rural village, in which habitat they are often found in northern Namibia (Dean 2005). This constitutes the first record for the country, although the species is probably regular in the area.

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First record of Sooty Gull *Larus hemprichii* for Seychelles

Frankie E. Hobro^a and Teresa Catry^b

Première mention du Goéland d'Hemprich *Larus hemprichii* pour les Seychelles. Un Goéland d'Hemprich *Larus hemprichii* a été observé à deux reprises sur la plage d'Aride, Seychelles, le 29 août 2005. Cette mention a été acceptée comme la première pour le pays par le Comité d'Homologation Seychellois.

On 29 August 2005 at 12.30 hrs we, the Aride Island Science and Administration Officer FEH and visiting researcher TC, observed an unusual bird on the southern beach of Aride Island Nature Reserve, the most northerly of the granitic islands in Seychelles. The bird was wandering towards the tideline at a distance of c.30 m. It was larger and considerably stockier than the Brown *Anous stolidus* and Lesser Noddies *A. tenuirostris* nearby and had a very obvious dark head and back. We both recognised it immediately as a species of gull, being familiar with *Larus* in Europe and elsewhere.

Upon observation through binoculars, several distinctive features were noted, in particular the red-tipped yellow bill, white eye-ring and pale collar, which did not extend to the breast, but terminated on the neck-sides. The bird was identified as a Sooty Gull *Larus hemprichii* through reference to Harrison (1985) and Maclean (1993). Aride ranger Francis Salomon and volunteer George Stoyle, who briefly observed the bird when it was initially sighted, both agreed with the identification.

The gull was located again between 14.00 and 15.00 hrs the same day, at the western end of Aride beach, but flew off east before it could be photographed; the bird was not seen again. Its tail was seen to be completely white above, contrasting starkly with the dark back and wings.

Description and identification

A medium-sized, mostly sooty-brown gull with a blackish hood, extending as a bib onto the grey breast. White hindneck extending to neck-sides. White crescent above and a smaller, fainter crescent below the eye. Mantle and back brownish grey; rump, uppertail-coverts and tail white. Belly mainly white. Wings sooty brown, with black tips to the primaries and a white trailing edge. Bill yellow with a red tip; legs yellow.

The bird was an adult in full breeding plumage: non-breeding adults have a duller head, the collar on the hindneck less defined or lacking, and duller bare parts (Löfgren 1984). It was separated from adult Black-headed Gull *Larus ridibundus*, the only somewhat similar-sized gull previously to have occurred in the Seychelles (Skerrett *et al.* 2001) by its yellow bill and legs, and darker back (Maclean 1993), and from the larger Great Black-headed Gull *L. ichthyaetus* in adult breeding plumage by its much darker upperparts, greyish breast, and hood extending onto the breast as a bib (Harrison 1985).

Status and distribution

Sooty Gull breeds in the southern Red Sea, from Jeddah to the Gulf of Aden, and the Persian Gulf as far as Pakistan, and locally along the coast of east Somalia to northernmost Kenya (on the Kiunga islets: Zimmerman *et al.* 1996). It is present off the Arabian coast year-round, although increasing numbers migrate south to Kenya and Tanzania, where peak totals occur in October–May (Harrison 1985, Olsen & Larsson 2003). Egg laying occurs mainly in July–August (Meinertzhagen 1954), which may explain the presence of an adult in full breeding plumage in August, although the breeding season in the Middle East is prolonged, extending from at least April to November (Jennings 1995), and the small numbers breeding in Kenya nest mainly in July–October (Zimmerman *et al.* 1996). Vagrancy is well established in Sooty Gull, with records from as far north as Lebanon and south-east to the Maldives and Sri Lanka (Olsen & Larsson 2003), and an inland record from Kenya (Lewis & Pomeroy 1989). The Seychelles Bird Records Committee (SBRC) has accepted the record as the first for the country.

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First record of Blue Quail *Coturnix adansonii* for Swaziland

Philip Perry

Première mention de la Caille bleue *Coturnix adansonii* pour le Swaziland. Une Caille bleue *Coturnix adansonii* mâle a été capturée et tuée par un chat à Thembelihle, Mbabane, le 5 mars 2006. Ceci constitue la première donnée pour le Swaziland de cette espèce, qui est devenue rare en Afrique australe.



Figure 1. Adult male Blue Quail *Coturnix adansonii*, Mbabane, 5 March 2006 (P. Perry)

Caille bleue *Coturnix adansonii*, mâle adulte, Mbabane, 5 mars 2006 (P. Perry)

On 5 March 2006, at c.06.30 am, my cat brought a dead bird to my house, in Mbabane's northern Thembelihle suburb, Swaziland ($26^{\circ}17'S$ $31^{\circ}08'E$). A quick glance suggested that it was not one of the usual prey species (doves, robin chats, sunbirds), but a quail or buttonquail. The bird was probably caught in the area below my house where there is a small valley leading to a stream and a small relict pocket of damp montane grassland (altitude c.1,130 m) surrounded by suburban housing and alien trees (pines *Pinus* sp. and eucalypts *Eucalyptus* sp.).

Reference to field guides (Sinclair *et al.* 1993, Hockey *et al.* 2005) identified the bird as an adult male Blue Quail *Coturnix adansonii*. The entire body was a dark slate blue, with distinctive chestnut wing-patches and flanks (which distinguish *C. adansonii* from the Asian Blue-breasted Quail *C. chinensis* with which it is sometimes considered conspecific). It had a well-defined, broad black anchor-like marking on a white throat and a nar-

row white line from the base of the bill to the eye. The legs were bright orange-yellow (Fig. 1).

The illustrations in Sinclair *et al.* (1993) and Hockey *et al.* (2005) are somewhat inaccurate as they show the male as having a partially brown or all-brown head and back, but these are actually dark slate blue. The former work also does not show the white line from the bill to the eye. The illustration in Urban *et al.* (1986) is more accurate in these respects.

This record is the first for Swaziland: the species is not mentioned for the country by Hockey *et al.* (2005), nor does it feature on Swaziland's most recent checklist, published online in January 2006 (Monadjem 2006). Blue Quail is a rare summer visitor to southern Africa. The most recent record for South Africa included in Hockey *et al.* (2005) is of a bird found dead in Durban in December 1973, but since then a male was observed in the northern Kruger National Park, near Shingwedzi, on 11 April 2004 (Demey

2004). The nearest record of this species to Mbabane is a specimen collected in Manhiça ($25^{\circ}24'S$ $32^{\circ}48'E$), c.50 km north of Maputo, southern Mozambique (Clancey 1996).

Acknowledgements

I thank Dr Ara Monadjem and Ron Demey for their useful comments on a draft of this note.

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The advertisement features a black and white photograph of a dense forest scene with many birds in flight, creating a sense of motion and abundance. On the left, there is a vertical logo for 'Wild Wings' in a stylized font. The main text on the right reads: 'Order your 2007 brochure now!' followed by 'Birdwatching Holidays and the best choice of Wildlife Cruises 2007'. Below this, contact information is provided: 'brochureline: 0117 9375 689', 'info & bookings: 0117 9658 333', and 'email: wildinfo@wildwings.co.uk'. At the bottom, the website 'www.wildwings.co.uk' is displayed in large, bold letters.

Little-known African bird: Little Brown Bustard *Eupodotis humilis*

Paul Goriup

Un oiseau africain peu connu: l'Outarde somalienne *Eupodotis humilis*. L'Outarde somalienne *Eupodotis humilis*, espèce classée comme Quasi-Menacée, est distribuée de façon clairsemée au nord et au centre-ouest de la Somalie et à l'est de l'Ethiopie avoisinante. La taille de sa population est inconnue. L'Outarde occupe les formations buissonnantes et fourrés décidus à *Acacia* et *Commiphora* de la Région Somalie-Masai, allant jusqu'aux formations herbeuses et arbustives semi-désertiques. On n'a encore décrit aucun comportement de parade nuptiale: ajouté au faible degré de dimorphisme sexuel, cela suggère que l'espèce est monogame, vivant en couples ou petits groupes familiaux durant toute l'année. Une étude phylogénétique a trouvé qu'elle forme un complexe avec l'Outarde de Rüppell *E. rueppellii* et l'Outarde de Vigors *E. vigorsii* qui jadis étaient regroupées dans le genre *Heterotetrax*. Bien que l'Outarde somalienne se trouve dans certaines 'aires protégées,' il est probable que la présence de camps de réfugiés des deux cotés de la frontière entre la Somalie et l'Ethiopie ait eu un impact négatif sur sa population à cause des effets combinés de la chasse, le défrichement pour l'agriculture, la collecte de bois de chauffe et le surpâturage.

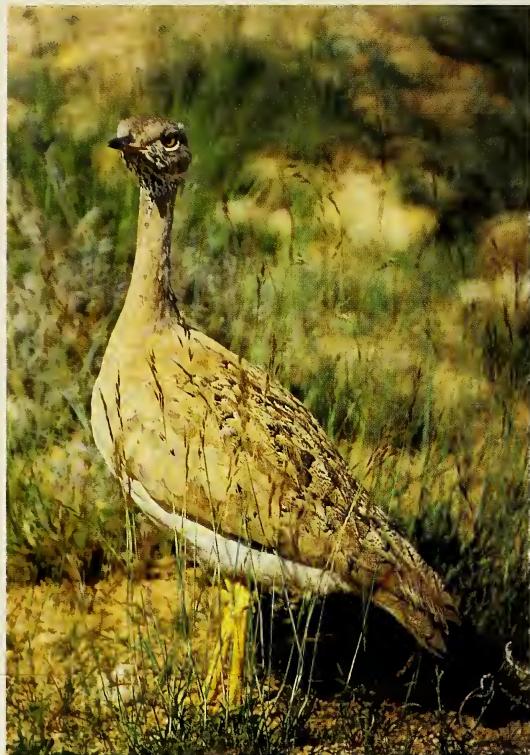
Little Brown Bustard *Eupodotis humilis*, classified as Near Threatened (BirdLife International 2000, 2004), has an uncertain population sparsely distributed solely in north and west-central Somalia and adjacent eastern Ethiopia. It is a plumpish, relatively short-legged bustard that resembles females of White-bellied Bustard *E. senegalensis* and Red-crested Bustard *E. ruficrista*, which also occur within its range, but is separated from the former by the plain brown foreneck and bright yellow legs, and from the latter by the all-white belly. The sexes are rather similar in size; males differ in having a black throat patch spotted with white and more orange-brown upperparts.

Habitats occupied by Little Brown Bustards include Somalia-Masai *Acacia-Commiphora* deciduous bushland and thicket, extending to tussocky semi-desert grassland. Like other desert-dwelling bustards, diet probably consists mainly of a range of plant material (shoots and seeds) as well as insects such as beetles and ants. Also like other bustards, the nest is on bare ground (a scrape may be formed), where a clutch of two (sometimes three) eggs is laid between April and August.

The few observations available, combined with the low degree of sexual dimorphism and lack of recorded courtship behaviour, suggest that Little Brown Bustards are monogamous, living in pairs or small family groups throughout the year. This

trait is shared with its close relatives in southern Africa, Karoo (or Vigors's) Bustard *E. vigorsii* and Rüppell's Bustard *E. rueppellii*. The observation by Giles Mulholland, on 25 December 2003, of a male throwing its head back and giving a high-pitched rattle *we-we-we*, with a female close by (Demey 2004), is analogous with descriptions by Boobyer (1989) of Vigors's Bustards defending territories that extend 55–320 ha depending on food availability, and within which birds are generally sedentary.

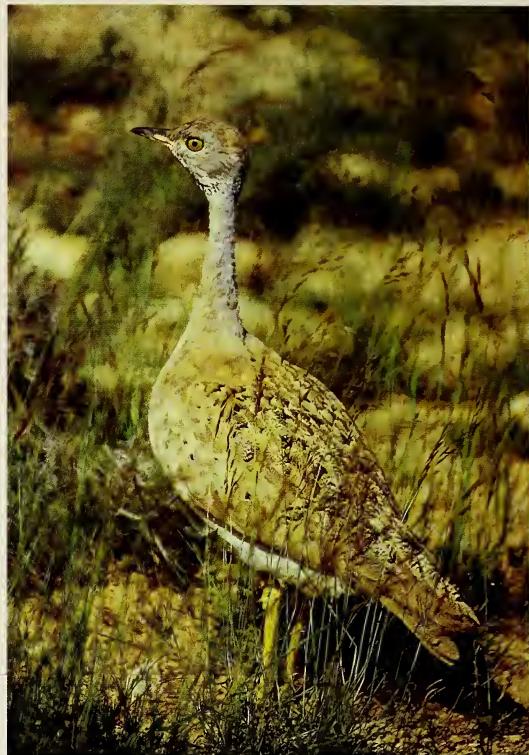
Thus far then, it seems we have before us a little boring bustard. Actually, the really interesting fact concerning this species is why it occurs in a small outpost in the horn of Africa, far from its relatives. According to the phylogenetic study by Pitra *et al.* (2001), Rüppell's Bustard was one of the earliest bustard species to appear during the family's rapid radiation (following separation from a common ancestor with cranes) that occurred in southern and eastern Africa some 85 MYA. *E. rueppellii* forms a complex, with Karoo and Little Brown Bustards, formerly afforded its own genus, *Heterotetrax*. Unfortunately, genetic material from the other two species was unavailable to Pitra and colleagues, so it is unclear which of the three constitutes the original form, but all of the other c.20 bustard species derive from another branch in bustard evolution. Meanwhile, at some point, the *Heterotetrax* group became separated, perhaps by



Figures 1–2. Male Little Brown Bustard *Eupodotis humilis*, north-west Somalia, June 2005 (John Miskell)
Outarde somalienne *Eupodotis humilis*, mâle, Somalie du nord-ouest, juin 2005 (John Miskell)

climate-related habitat change, and the ancestor of *humilis* was pushed ever further north-east; or a contiguous population within a corridor from south-west to north-east Africa became fragmented, eventually leaving a pocket population in the horn. Either way, if such trends are still in progress, then clearly the Little Brown Bustard is very vulnerable, trapped in its corner of Africa.

Little Brown Bustards occur in a number of ‘protected areas’ in Somalia and Ethiopia. However, the continuing presence of refugee camps on both sides of the Ethiopia–Somalia border is likely to have impacted its population through the combined effects of hunting, cultivation, firewood collection and overgrazing. The bird deserves more conservation attention than it receives at present.



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Recent Reports



These are largely unconfirmed records published for interest only; records are mostly from late 2005 and early 2006, with a few from earlier dates. We thank all birders who have sent in their records and urge them to submit full details to the relevant national or regional organisations. It is suggested that observations of each species be compared with relevant literature to set new data in context and that observers who are unfamiliar with the status of birds in a particular country refer to R. J. Dowsett's (1993) Afrotropical avifaunas: annotated country checklists (in: R. J. Dowsett & F. Dowsett-Lemaire. A

Contribution to the Distribution and Taxonomy of Afrotropical and Malagasy Birds. Tauraco Res. Rep. 5. Liège: Tauraco Press) or more recent or appropriate sources before submitting records.

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Les observations ci-après sont en majeure partie non confirmées et sont publiées uniquement dans le but d'informer. La plupart des données sont de 2005 et début 2006; quelques-unes sont plus anciennes. Nous remercions tous les ornithologues qui ont pris la peine de nous faire parvenir leurs données et nous

recommandons de les envoyer, dûment documentées, aux organisations nationales ou régionales concernées. Il est conseillé de vérifier le statut des espèces observées dans la littérature appropriée, afin de mettre les nouvelles données en perspective, et de consulter notamment R. J. Dowsett (1993) *Afrotropical avifaunas: annotated country checklists* (in: R. J. Dowsett & F. Dowsett-Lemaire. *A Contribution to the Distribution and Taxonomy of Afrotropical and Malagasy Birds.* Tauraco Res. Rep. 5. Liège: Tauraco Press) ou des sources plus récentes ou appropriées.

Azores

The following records relate to the period October 2005–March 2006. An unidentified frigatebird was reported in November. Both Pied-billed Grebes *Podilymbus podiceps* on São Miguel stayed into March, at Lagoa Azul (from at least 3 November) and Lagoa Furnas (from 27 October); a first-year was at Lajes, Pico, on 18–19 December. A first-winter Double-crested Cormorant *Phalacrocorax auritus* was present at Madalena, Pico, from 23 January to at least 17 February. The 9–10th Black-crowned Night Herons *Nycticorax nycticorax* for the Azores were found on Flores on 1 November and at Ponta Delgada harbour, São Miguel, from 18 November. The Great Blue Heron *Ardea herodias* at Lagoa Branca, Flores, first seen on 22 September 2005, was still present on 15 February. Sightings of Ring-necked Ducks *Aythya collaris* included seven at Sete Cidades, São Miguel, and four at Poco da Alagoinha, Flores, through December.

A first-year Eurasian Marsh Harrier *Circus aeruginosus* on São

Miguel on 21 November was apparently the fourth for the Azores, whereas a possible first-winter male Hen Harrier *C. cyaneus hudsonicus* at Lagoa Rasa, Flores, on 8 November may be accepted as the first or second for the islands. An American Coot *Fulica americana* was at Lagoa de Capitão, Pico, from at least 19 December to 7 January, and at Lajes, Pico, on 23 January. A Semipalmated Plover *Charadrius semipalmatus* was still present at Cabo da Praia, Terceira, on 21 December, with up to two there from early January to at least 14 February, and one at Ponta Delgada, Flores, on 1–15 February. A Least Sandpiper *Calidris minutilla* was seen at Cabo da Praia, Terceira, from at least 8 November to 14 February. A Hudsonian Whimbrel *Numenius phaeopus hudsonicus*, first seen on Flores on 11 November, was present on Corvo from 19 November through December. The first-year Upland Sandpiper *Bartramia longicauda* reported from Ponta Delgada, Flores, on 30 October, remained through most of November. At Lajes, Flores, a Spotted Sandpiper

Actitis macularius was seen from 30 January to 10 February.

Laughing Gulls *Larus atricilla* remained in the Azores throughout the period: of the group of ten at Ponta Delgada, Flores, in mid November, three were still present in late December; up to eight were found in the islands from late January to early March. Mediterranean Gulls *L. melanocephalus* were reported from Terceira on 21 December (one) and from early January to at least 12 February (up to three), and from São Miguel, from early January to at least 19 February (up to three). Several American Herring Gulls *L. argentatus smithsonianus* were identified on Flores in late December. A group of 17 Ring-billed Gulls *L. delawarensis* was seen at Praia da Vitoria, Terceira, on 22 December. Single Iceland Gulls *L. glaucocephalus* were found at Lajes, Pico, on 7 January, at Horta harbour, Faial, on 16 February, and at Santa Cruz, Graciosa, on 11 February. The first-winter Forster's Tern *Sterna forsteri* on Terceira, first seen on 30



Belted Kingfisher *Ceryle alcyon*
(Claudia Donati)

October, was still present on 22 November.

Four Chimney Swifts *Chaetura pelagica* at Horta, Faial, on 10 November, were the last of a remarkable influx. A first-year female Belted Kingfisher *Ceryle alcyon* was observed at Santa Cruz, Graciosa, from 9 December to at least 18 February. An American Buff-bellied Pipit *Anthus rubescens rubescens* was found at Lagoa do Peixinho, Pico, on 23 January. Fieldfares *Turdus pilaris* were reported from Lagoa Azul, São Miguel, on 24 November (one) and Serra Branca, Graciosa, on 21 December (a flock of 16); there are few records for the Azores. A Common Chiffchaff *Phylloscopus collybita* was present on Corvo on 23–26 December.

The first White-eyed Vireo *Vireo griseus* for the Western Palearctic, observed on Corvo on 22–23 October, was seen again on 23 November (unless it was another individual). On the same island, the first Tennessee Warbler *Vermivora peregrina* for the Azores was discovered on 21 November. Still on Corvo, the female Black-throated Blue Warbler *Dendroica caerulescens* from 24 October was last seen on 23 November and the Ovenbird *Seiurus aurocapilla* from 1 November was still present on 25 December. Also there was another first for the Azores: a female Common Yellowthroat *Geothlypis trichas*, found on 30 November. The Myrtle (Yellow-rumped) Warbler *Dendroica coronata*

on São Miguel, first seen on 21 November, was still present on 15 December (per *Birding World* 19: 12; *Dutch Birding* 28: 38–54, 110–118).

Botswana

The excellent rains in December 2005 and early 2006 throughout the country brought some bonuses. In the north there was a good influx of crakes, with African Crakes *Crex egregia* and Spotted Crakes *Porzana porzana* recorded from Sua Spit in the Makgadikgadi system, and numerous African and Striped Crakes *Aenigmatolimnas marginalis* in the Okavango Delta, whilst in the south-east Melodious Larks *Mirafra cheniana*, Cloud Cisticolas *Cisticola textrix* (new for Botswana) and Bokmakieries *Telophorus zeylonus* were observed between Pitsane Siding and Kgoro Pan. A Red (Grey) Phalarope *Phalaropus fulicarius* was reported from Nxai Pan and the Central Kalahari Game Reserve.

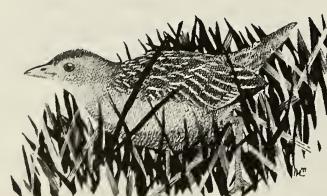
There were 41 Black-necked Grebes *Podiceps nigricollis* at Kgoro Pan in south-east Botswana and a single at Pitsane Pan on 11 January; in the Makgadikgadi system three were seen at Nata Sanctuary and 11 at Sua Spit on 3–4 February. Particularly exciting was the location of six breeding colonies of Slaty Egrets *Egretta vinaceigula* in the Okavango Delta in March–May 2006. Nests had eggs and chicks, and were sited in reedbeds and on palm islands. In 2005 known colonies were not in use, but again the good rains seem to have acted as a stimulus to breeding of Slaty Egrets in 2006, often alongside Rufous-bellied Herons *Butorides rufiventris* and Squacco Herons *Ardeola ralloides*. A Black Stork *Ciconia nigra* was noted

at Dopotta in the Tuli Block on 3 January 2006 and another in the Dopotta River on 17 March. An estimated 81,474 Lesser Flamingos *Phoeniconaias minor* (c.40,737 pairs) and 24,380 Greater Flamingos *Phoenicopterus (ruber) roseus* (12,190 pairs) were counted from aerial photographs of the breeding colonies in Sua Pan on 28 January. Maccoa Duck *Oxyura maccoa*, usually found only in south-east and eastern Botswana, bred in the Makgadikgadi Pans and a single bird was seen on Mea Pan in the south of the system in May.

An Osprey *Pandion haliaetus* was seen at Gaborone Dam in the Yacht Club area in December 2005, and up to three were on the Boteti River above Samedupi in mid-January. Two Grey Crowned Cranes *Balearica regulorum* were noted at Sua Spit on 14 February, whilst on 25 February eight were seen flying to roost in a reedbed near the inflow of the Semowane River into Sua Pan. Recent evidence suggests that a pair of Blue Cranes *Anthropoides paradisea* had nested in the Makgadikgadi Pans up to 2002. As most records of Thrush Nightingale (or Sprosser) *Luscinia luscinia* come from the north and east of Botswana, a record of two in the Kopong Hills on 4 March is of interest. So too is the occurrence of Pale Flycatchers *Bradornis pallidus* south of Gaborone (CBR, PH, GMC, MM, NT, JVZ, per ST).

Cameroon

The following records were reported for the period January–April 2006. More than 1,000 Little Grebes *Tachybaptus ruficollis* were counted on Lake Oku on 5 March; this site is known to seasonally hold large numbers of this species. A Black Stork *Ciconia nigra* was seen at Campement Buffle Noir, Bénoué National Park, on 23 January; this species is a vagrant to Cameroon (JvdW). An immature Eurasian Griffon Vulture *Gyps fulvus* was photographed in Waza National Park on 11 April; this appears to be the first documented record for the country. An adult Ayres's Hawk Eagle



Striped Crake *Aenigmatolimnas marginalis* (Pete Leonard)

Hieraetus ayresii was seen well at Ngaoundaba on 4 April; there do not seem to be many, if any, records of this species from this location (NB).

An American Golden Plover *Pluvialis dominica* was found at La Digue, near Douala, on 11 April (DH). On the Bamendjing Reservoir, Ndop plains, North-west Province, three gull species were observed on 4 March: Grey-headed Gull *Larus cirrocephalus*, Lesser Black-backed Gull *L. fuscus* (one) and Black-headed Gull *L. ridibundus* (one) (JvdW). A Golden Nightjar *Caprimulgus eximius* was found during the day near Mora on 18 April (DH).

An African Broadbill *Smiornis capensis* was observed in Mankon forest in the Bamenda Highlands on 2 March; this species is rarely noted in the area (JvdW). Three male Collared Flycatchers *Ficedula albicollis* in breeding plumage were seen: one at Ngaoundaba on 4 April, another near the ranch on 6th and a third at Lake Awing on 15th; there is only one previous record for the country, from Bénoué National Park, in 1993 (NB). House Sparrows *Passer domesticus* were found at Kousseri, on the bank of the Chari River opposite Ndjamen, on 3 April (N&LB). At least ten Rock Firefinches *Lagonosticta sanguinodorsalis* were seen near Maroua on 19 April (DH).

A seven-day visit to Dja in March 2006 yielded the following. The large grass-covered rocky outcrops rising above the forest had their own avifauna with Freckled Nightjar *Caprimulgus tristigma* and Long-legged Pipit *Anthus pallidiventris* being especially common. Noteworthy sightings from these outcrops, which appear to be migrant traps, included a Purple Glossy Starling *Lamprotornis purpureus* on 19th, presumably a wanderer from the savannas, a Rock Pratincole *Glareola nuchalis* c.30 km from the nearest river on 21st, and a Woolly-necked Stork *Ciconia episcopus* on 19th–21st. There was a regular passage of European Bee-eaters *Merops apiaster* (60 birds in total). Other records include a Yellow-throated

Cuckoo *Chrysococcyx flavigularis* on 18th, a Bates's Nightjar *Caprimulgus batesi* and two Black Spinetails *Telacanthura melanopygia* on 21st, and an Olivaceous Flycatcher *Muscicapa olivascens* on 18th, all near Boumir. Single Zenker's Honeyguides *Melignomon zenkeri* were seen near Somolomo on 16th and near Boumir on 21st. What was thought to be a Shelley's Eagle Owl *Bubo shelleyi* (based on the recording on the Chappuis CDs) was heard on the night of 20th, but the bird was some distance away and didn't respond to the tape. The Grey-necked Picathartes *Picathartes oreas* colony near Boumir contained over 100 nests; seven birds were seen in 30 minutes after dawn and a dozen more were heard (EW).

Canary Islands

The following records from the period October 2005–March 2006 were reported. Two Red-billed Tropicbirds *Phaethon aethereus* were seen off Playa de Papagayo, Lanzarote, on 18 March. Four pairs of Ruddy Shelducks *Tadorna ferruginea*, two of which had seven and nine young, were at Embalse de Los Molinos, Fuerteventura, on 16 March. A Blue-winged Teal *Anas discors* stayed at El Fraile, Tenerife, from 21 October to at least 28 January, with another at Charca de Maspalomas, Gran Canaria, from 17 December to at least 25 February, and one at Salinas de Janubio, Lanzarote, on 22 April. A female Lesser Scaup *Aythya affinis* was at Catalina Garcia, Fuerteventura, from 30 December until at least 15 February, and a

female Ring-necked Duck *A. collaris* at Embalse de Valle Molina, Tenerife, from 20 January to at least 20 February, with a male at Catalina Garcia, Fuerteventura, on 25th.

A Red Kite *Milvus milvus* flew over Güímar, Tenerife, on 18 February. On 1 January, a Spotted Sandpiper *Actitis macularius* was reported from Corralejo Beach, Fuerteventura, with another at Salinas de Janubio, Lanzarote, from 12 January to at least 5 March, and one at Punta del Hidalgo, Tenerife, on 18 March. Laughing Gulls *Larus atricilla* were reported from Valle Gran Rey, Gomera, on 5 January (two) and from Castillo del Romeral, Gran Canaria, on 5 February (one). Several Mediterranean Gulls *L. melanocephalus* were found from late November into December, including five on 26 November; on 2 February, five were seen at Arrecife, Lanzarote. On Tenerife, the Ring-billed Gull *L. delawarensis* from Playa Los Cristianos, present since November, was still there in February, with a second also at that site during that month; one was also found at Garachico.

A first-winter Citrine Wagtail *Motacilla citreola* remained at Arrecife, Lanzarote, from 20 November to at least 18 January. A male Red-backed Shrike *Lanius collurio* was at Amarilla Golf, Tenerife, on 19 March. The long-staying Northern Mockingbird *Mimus polyglottos* at Arguineguín, Gran Canaria, first seen in November 2004, was still present on 21 January; it was trapped on 29 January and is now held in captivity. A Yellow-browed Warbler *Phylloscopus inornatus* was at Playa Blanca, Lanzarote, on 13–18 November. The first Hawfinch *Coccothraustes coccothraustes* for the Canaries was discovered at Barranco de la Torre, Fuerteventura, on 24 October; two females were present on Lanzarote on 16 December (per *Birding World* 18: 500, 19: 12–13, 61, 103, 158; per *Dutch Birding* 28: 38–54, 117–118).

Records from Fuerteventura in April 2006 include the following. Three Eurasian Spoonbills *Platalea*



Collared Flycatcher *Ficedula albicollis*
(Pete Leonard)



1



2



3



4



5



6

leucorodia and a Collared Pratincole *Glareola pratincola* were at Catalina Garcia on 8th. Single Laughing Doves *Streptopelia senegalensis* were seen at Costa Calma, Jandia and Vega de Rio Palmas, on 3rd–10th. An African Collared Dove *S. roseogrisea* was at Vega de Rio Palmas on 8th. Two Red-rumped Swallows *Hirundo daurica* were seen at Costa Calma, on 5th, and five at Jandia the next day (DR).

Cape Verde Islands

Records from January–March 2006 include the following. Single dark-morph Western Reef Herons *Egretta gularis* were reported from Mindelo sewage ponds, São Vicente, on 11 March, Mindelo fish market, São Vicente, on 11–12 March, and Sal Rei, Boavista, on 14 March. An immature male Eurasian Marsh Harrier *Circus aeruginosus* was at Rabil lagoon, Boavista, on 12–13 March. On Santiago, two Cape Verde Buzzards *Buteo (buteo) bannermani* were found near João Teves, Serra do Pico da Antonia, on 3 March, and a

Captions to figures on opposite page

Figure 1. Common Shelduck / Tadorne de Belon *Tadorna tadorna*, Boffa, Guinea, 23 January 2006 (Rob Felix)

Figure 2. Kelp Gull / Goéland dominicain *Larus dominicanus*, Boffa, Guinea, 20 January 2006 (Rob Felix)

Figure 3. Black Crowned Crane / Grue couronnée *Balearica pavonina*, Boké, Guinea, 21 January 2006 (Menno Hornman)

Figure 4. Franklin's Gull / Mouette de Franklin *Larus pipixcan*, Oued Souss, Morocco, 6 April 2006 (Arnoud B. van den Berg)

Figure 5. Little Crake / Marouette poussin *Porzana parva*, Goudel, Niger, 5 March 2006 (Daniel Cornélis)

Figure 6. Western Reef Heron / Aigrette des récifs *Egretta gularis schistacea*, near South Luangwa NP, Zambia, 3 February 2006 (Greg Poole)



Spur-winged Lapwing *Vanellus spinosus* (Pete Leonard)

Cape Verde Peregrine *Falco (peregrinus) madens* near São Lourenço dos Órgãos on 5th. A Pied Avocet *Recurvirostra avosetta* was at Pedra de Luma saltpans, Sal, on 15 March, and a Spur-winged Lapwing *Vanellus spinosus* at Tarrafal, Santiago, on 4 March. A Temminck's Stint *Calidris temminckii* was reported from Pedra Badejo lagoons, Santiago, on 5 March. A Lesser Yellowlegs *Tringa flavipes* was discovered at Santa Maria saltpans, Sal, on 15 January (per *Birding World* 19: 61, 101–103).

A Greater Hoopoe Lark *Alaemon alaudipes* was seen at Santa Maria saltpans, Sal, on 15 March (per *Birding World* 19: 103); the species is not known as a breeder on Boavista and Maio only, as stated in previous Recent Reports (*Bull. ABC* 13: 100), but also on Sal, where the first unequivocal evidence of breeding was in 1998, when an adult feeding two young in the nest was observed on 27 October (Hazevoet 1999, *Bull. zoöl. Mus. Univ. Amsterdam* 17: 19–32), following sightings in the dunes of Santa Maria since 1995. A small population has now apparently become established on the island (Hazevoet 1999; Barone Tosco *et al.* 2000, *Makaronesia* 2: 43–55). Two to four Common Whitethroats *Sylvia communis* were observed on Boavista, during 2–10 March; these are apparently the first for the archipelago (AQ). In March, Iago Sparrows *Passer iagoensis* were found to be common on Sal (per *Birding World* 19: 103).

Chad

A birding trip to Zakouma National Park, in the south-east of this little-visited country, produced c.130 bird species. Ostrich *Struthio camelus* was found to be still relatively common and Black Crowned Crane *Balearica pavonina* was abundant. Other species recorded included Long-legged Buzzard *Buteo rufinus* (common), Arabian Bustard *Ardeotis arabs*, a group of Fulvous Babblers *Turdoides fulva* near Tinga Camp (this location would represent a southern range extension), and Neumann's Starling *Onychognathus neumanni* near Ibir (IY).

Congo-Brazzaville

In Lac Tele Community Reserve, Great Snipe *Gallinago media* were common in January–February 2006, with up to four seen in a day. Weyns's Weaver *Ploceus weynsi* was still in the area (HR).

DR Congo

In Salonga National Park, in December 2005, a Congo Peacock *Afropavo congensis* was initially glimpsed and 16 days later—during which 170 km of forest trails were walked—another was seen well (CC). In early 2006, the species was heard at several localities in relatively undisturbed forest between the Lomami and the Tshuapa rivers south-west of Kisangani, in Yawende Looloo, Opala territory, Oriental Province. The birds, which are locally known as 'litono,' called late in the evening and at night (FV). A Whiskered Tern



Congo Peacock *Afropavo congensis* (Pete Leonard)

Chlidonias hybrida was found in a flock of c.20 White-winged Terns *C. leucopterus* on the Congo River, near Kinshasa's nautical club, on 5 April 2006 (FV). *Brazza's Martin Phedina brazzae* was recorded in Salonga National Park, in December 2005 (CC).

Egypt

Records from the period November 2005–April 2006 include the following. A Red-billed Tropicbird *Phaethon aethereus* was at Hurghada on 25 February (per *Birding World* 19: 104). A Green-backed Heron *Butorides striata* and two Goliath Herons *Ardea goliath* were found at Wadi Lahami and Marsa Hemira mangroves on 7 February. Two Three-banded Plovers *Charadrius tricollaris* were seen in the Aswan area on 25–30 January; at least one was still present on 10 February. A first-winter Kittlitz's Plover *C. pecuarius* was observed on Crocodile Island, Luxor, on 19 November (per *Dutch Birding* 28: 38–54, 110–118). A pair of African Collared Doves *Streptopelia roseogrisea* was displaying 23 km north of Marsa Alam on 21 March. At El Gouna, north of Hurghada, a Richard's Pipit *Anthus richardi* was seen on 23 March, with two there on 9–12 April (per *Birding World* 19: 104, 158).

Equatorial Guinea

The first White Stork *Ciconia ciconia* for Bioko was observed at Punta Europa on 4 February 2006; there had been a heavy thunderstorm the night before which may have blown it in from the mainland. The bird was last seen on 23rd, when the observer left the island (RL).

The Gambia

Belated records from January 2005 include two Grasshopper Warblers *Locustella naevia* on Janjanbureh Island, Central River Division, on 13th, and an Ortolan Bunting *Emberiza hortulana* near Tendaba Camp, Lower River Division, on 17th (MT).

Records from November 2005–May 2006 include the follow-

ing. An unidentified frigatebird was photographed at Tanji in December (per *Dutch Birding* 28: 38). A flock of 43 Northern Gannets *Sula bassana* was seen off Banjul on 18 February (CB). At Sabi, Upper River Division, three young Red-necked Falcons *Falco chicquera* were ready to leave their nest on 29 April (KR). A Spotted Crake *Porzana porzana* was at Jakhaly wetlands, west of Georgetown, CRD, on 27 November; the only acceptable previous record is of one heard calling at Pirang, in October 1988. A White-rumped Sandpiper *Calidris fuscicollis* was claimed from Kau-er wetlands, with a single Curlew Sandpiper *C. ferruginea* and Little Stints *C. minuta* nearby, on 24 November; this would constitute a new species for the country, if accepted (SD). Two Brown Sunbirds *Anthreptes gabonicus*, regularly seen around a swimming pool at Banjul in February, are an unusual record. A flock of 36 House Sparrows *Passer domesticus* at Banjul on 12 May is the largest to date since a few were found in 1985 (CB).

Ghana

Records from March 2006 include a pair of African Piculets *Sasia africana* seen well at Aboabo, near Kakum National Park, on 18th, and a pair of Forest Penduline Tits *Anthoscopus flavifrons* at Antikwaa, also near Kakum, 20th. An Ortolan Bunting *Emberiza hortulana* was claimed from Mole National Park on 23rd; this would be a new species for Ghana, if accepted (RW).

Guinea

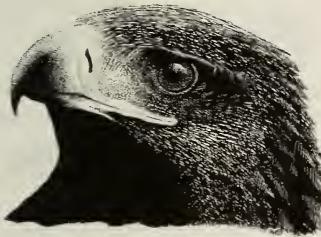
During a waterbird census conducted in January 2006 in Guinea's coastal wetlands, four species were added to the country list: Eurasian Spoonbill *Platalea leucorodia* (an adult with a group of nine African Spoonbills *P. alba* in Sangareya Bay, Dubréka, on 17th), Common Shelduck *Tadorna tadorna* (five on the Khoni Benki mudflats, Boffa, on 23rd; Fig. 1), Kelp Gull *Larus dominicanus* (an adult with four Grey-headed Gulls *L. cirrocephalus* on Kindiadi beach, Boffa, on 20th, and another

on the beach of Khoni Benki, Boffa, with 16 Lesser Black-backed Gulls *L. fuscus*, on 23rd; Fig. 2), and Winding Cisticola *Cisticola galactotes* (ten at Koba rice fields, Boffa, on 19th).

Other interesting records from the same period include the following. A Dwarf Bittern *Ixobrychus sturmii* was seen on the Bokaria Plain, Boké, on 22nd. Yellow-billed Storks *Mycteria ibis* were observed in Sangareya Bay, Dubréka (12 on 18th), at Khoni Benki, Boffa (ten on 23rd), and at Yongo Salé, Boké (60 on 2nd); these records demonstrate that the species occurs along the entire Guinean coast. Three Fulvous Whistling Ducks *Dendrocygna bicolor* were in a flock of 3,000 White-faced *D. viduata* at Yongo Salé, Boké, on 23rd; this is a rare species in Guinea. Sixteen Northern Shovelers *Anas clypeata* at Khoni Benki, Boffa, on 23rd, constitute the first coastal record. A Lanner Falcon *Falco biarmicus* was seen near Wassou on 19th, and an African Crake *Crex egregia* in the Koba rice fields, Boffa, on 19th.

A pair of Black Crowned Cranes *Balearica pavonina* with a juvenile was observed in the Monchon Plain, Boké, on 21st (Fig. 3). In the Koba rice fields, Boffa, 985 Collared Pratincoles *Glareola pratincola* were present on 20th; this species occurs along the entire Guinean coast. A total of 2,295 Pied Avocets *Recurvirostra avosetta* counted on 16th and 26th is a high number so far south.

Six Black-billed Wood Doves *Turtur abyssinicus* at the Grandes Chutes, Kindia, on 27th, are an addition to the site list. Twenty-five White-rumped Swifts *Apus caffer* flew over Sangareya Bay, Dubréka, on 18th. Mottled Swifts *Tachymarptis squamata* were seen over the Monchon Plain, Boffa (50 on 21st) and at the Grandes Chutes, Kindia (50 on 27th). Also at the latter site were 25 Rufous-chested Swallows *Hirundo semirufa*. In the Koba rice fields, Boffa, two Black-backed Cisticolas *C. eximius* were seen on 20th and a Black-faced Quailfinch *Ortygospiza atricollis* the previous day (MC, M3C, RF, MH, NK, KS).



Greater Spotted Eagle *Aquila clanga*
(Pete Leonard)

Kenya

The following records are from November 2005–May 2006 unless otherwise stated. Four Dimorphic Egrets *Egretta dimorpha* were at Nakuru National Park (=NP) on 26 November. At Lake Jipe, 150 Black Herons *E. ardesiaca* were counted on 31 January. An early Madagascar Squacco Heron *Ardeola idae* was seen in Nairobi NP on 1 May. A Common Teal *Anas crecca* was observed in Nairobi NP on 12 December, with two at Naivasha on 5 May. An adult African Cuckoo Hawk *Aviceda cuculoides* was in Nairobi NP on 6 November; this is an unusual species around Nairobi. Single Beaudouin's Snake Eagles *Circaetus beaudouini* were observed at Mungatsi, on the Mumias–Busia road, on 21 January, and at Madende Creek on 2 February. Other raptor records include an adult and an immature Ovambo Sparrowhawk *Accipiter ovampensis* photographed on the Masai Mara escarpment on 28 November, a Rufous-chested Sparrowhawk *A. rufiventris* seen on the descent towards Subukia on 24 November, a Long-legged Buzzard *Buteo rufinus* at Nanyuki on 21 November, and two Greater Spotted Eagles *Aquila clanga* at Nakuru NP on 26 November and a second-year bird at Naivasha on 4 January.

A Spotted Crake *Porzana porzana* was seen in the Splash wetlands, Nairobi, on 22–26 March. A Denham's Bustard *Neotis denhami* was observed at Solio Ranch Road, Nyeri; records of this uncommon species are welcome. The first Pied Avocet *Recurvirostra avosetta* in Nairobi NP in nine years was seen on

6 November (CJ). A Senegal Thick-knee *Burhinus senegalensis* was claimed from Kisumu on 26 February (TG). Two Pacific Golden Plovers *Pluvialis fulva* were in the Tana River delta on 31 January. A Brown-chested Lapwing *Vanellus superciliosus* in full breeding plumage was at Musiara on 16 January. An African Snipe *Gallinago nigripennis*, a rare species in the Rift Valley, was seen at Naivasha on 4 January. A Sandwich Tern *Sterna sandvicensis* was on the beach near Tana River Camp on 31 January, and a Little Tern *S. albifrons* was roosting in Nakuru NP on 27 November; the latter species has only been recorded a handful of times in Kenya. A flock of 72 African Skimmers *Rynchops flavirostris* was roosting in Tana River delta on 31 January, with 60–100 at Lake Jipe on the same day.

A Mottled Spinetail *Telacanthura ussheri* was observed at Mountain Lodge, Mt Kenya, on 21 November, and two Alpine Swifts *Tachymarptis melba* were at the Tana River delta on 31 January. On 19 November, a White-fronted Bee-eater *Merops bullockoides* was spotted at the Tsavo–Kimana road (CJ). Two Brown-breasted Barbets *Lybius melanopterus* were claimed from Arabuko-Sokoke Forest on 17–22 June 2005 (EF). A pair of Pallid Honeyguides *Indicator meliphilus* was observed at Kichwa Tembo, in the Masai Mara, on 11 August 2005 (NR).

Hundreds of Chestnut-backed Sparrow Larks *Eremopterix leucotis*



Mottled Spinetail *Telacanthura ussheri*
(Pete Leonard)

were in an area of short grass just north of Sabaki River, Malindi, on 30 January; these are unusually large numbers for this species on the coast. White Wagtails *Motacilla alba* were reported from several sites in the Rift Valley and further. Two Sharpe's Longclaws *Macronyx sharpei* were observed in the Solio Plains, Naro Moru, on 15 January; this species is most commonly reported from the Kinangop. A Pied Wheatear *Oenanthe pleschanka* of the white-throated 'vittata' form was found near the junction of Lake Baringo road with the main road north on 18 January. More than 200 Isabelline Wheatears *O. isabellina* were counted along the Solio Ranch road from Nyeri on 23 November. An African Thrush *Turdus pelios* was found at Lake Baringo on 25 November; this species is a vagrant to this area.

A late Olivaceous Warbler *Hippolais pallida* was on the Magadi road on 6 May. Single Icterine Warblers *H. icterina* were seen near start of the road heading for Narok from the Masai Mara on 30 November and at Siana Springs on 18 January. Barred Warbler *Sylvia nisoria*, an unusual species on the coast, was reported from Gongoni, just north of Malindi, on 30 January, and from Tana River Camp, on 1 February. Single Wood Warblers *Phylloscopus sibilatrix* were at Kericho Arboretum on 27 November and at Naivasha on 7 April. Early November, Black-backed Cisticola *Cisticola eximius* was observed in the western Mara; this species was thought extinct in Kenya but seems to be hanging on at this site. A Semi-collared Flycatcher *Ficedula semi-torquata* was recorded at Siana Springs, Masai Mara, on 18 January. A Taita Fiscal *Lanius dorsalis* in Nairobi NP on 15 November is possibly the first record here since the 1960s. A pair of Sharpe's Starlings *Pholia sharpii* was nesting at Thompson's Falls, Nyahururu, on 24 November. Fifteen Magpie Starlings *Speculipastor bicolor* were along the Marigat–Nakuru road on 25 November; this species is fairly unpredictable in its movements. An

influx of Eastern Paradise Whydahs *Vidua paradisaea* occurred along the coast—where the species is not normally seen—during the very dry period, with many around Malindi/Watamu on 29 January–7 February (J).

Libya

Records from July–November 2005 include the following. Off the coast at Janzour, 13 km west of Tripoli, a marked eastwards passage of Scopoli's Shearwaters *Calonectris (diomedea) diomedea* occurred from c.25

September until 22 October, when it ceased abruptly. Regular counts of 20–50 were made during this period, with a maximum count of 83 birds visible at one time. Single European Honey Buzzards *Pernis apivorus* were observed at Janzour, on 8 and 23 September. Also there was an Eleonora's Falcon *Falco eleonorae* on 29 August. An adult and an immature Barbary Falcon *F. pelegrinoides* were observed hunting over allotments on the outskirts Sabha, Fezzan, on 25 October. A dark-morph Arctic Skua *Stercorarius parasiticus* flew east past Janzour, Tripolitania, on 17 August. A first-summer Audouin's Gull *Larus audouinii* photographed in flight at Benghazi harbour on 4 July is the first record of the species in Cyrenaica. A group of five Ring-necked Parakeets *Psittacula krameri* was seen flying towards Tripoli on 9 September and a single going to roost at Sabha on 29 October; these represent the first records for Tripolitania and the Fezzan respectively. A late European Roller *Coracias garrulus* was at Janzour on 15–16 October.

Rock Martins *Hirundo fuligula* were observed collecting mud at Sabha and Germa in Wadi al Hayat (formerly Wadi Ajal) in late October. A migrating flock of c.10 Red-rumped Swallows *H. daurica* was observed flying west 400 m out to sea at Janzour on 13 October. A first-winter Blue Rock Thrush *Monticola solitarius* at Sabha on 26 October was the third record for the Fezzan. A distant thrush photographed on a rocky outcrop in Wadi al Hayat, Fezzan, on 30 October was almost

certainly the same species. On 27 October, a Southern Grey Shrike *Lanius meridionalis* of the race *elegans* was observed at 25°43'N in Wadi Matkhandush, which separates the Ubari and Murzuq 'sand seas' in the south-west of the country. A little further north, the species was found to be common in allotments on the edge of Sabha. During 25–29 October, small flocks of 'Italian' Sparrows *Passer hispaniolensis* × *domesticus* were observed at Sabha and Germa in Wadi al Hayat; they were identical, except for noticeably yellow-white bills, to those observed 600 km further north in Tripolitania (JG).

During a waterbird census conducted in January 2006, c.20,000 gulls were counted at the Benghazi refuse dump, on 28th, among which were 2,500 Caspian Gulls *Larus (cachinnans) cachinnans* (NBa per MP).

Madeira

Records from November 2005–March 2006 include the following. An unidentified frigatebird was reported in November. A Spotted Sandpiper *Actitis macularius* was seen on 29 December. Two Laughing Gulls *Larus atricilla* were in Funchal harbour on 24 November, with five there late January–early March. Seven first-winter Mediterranean Gulls *L. melanocephalus* and one second-winter were seen in mid December. A Ring-billed Gull *L. delawarensis* was found at Funchal on 14 December; also there, an adult Roseate Tern *Sterna dougallii* was photographed on the same day. The first Stock Dove *Columba oenas* for Madeira was photographed at Ponta de São Lourenço on 19 January, whilst the second Common Crossbill *Loxia curvirostra* for the island (a male) was photographed on 26 February (per *Birding World* 19: 500; per *Dutch Birding* 28: 38–54, 117–118).

Mali

During a waterbird census carried out in January 2006 in the Niger delta, six Common Shelducks

Tadorna tadorna were observed (OG). On 2–3 January 2006 at least six small *Sylvia* warblers identified as Spectacled Warblers *Sylvia conspicillata* were observed in the Sokolo area. Distinctive features included pink underparts with a contrasting white throat, a very distinct whitish eye-ring and grey-brown upperparts in males, whilst females had a weaker eye-ring and paler, duller underparts. There is only one previous record for Mali, from 1 March 2000 (see *Bull. ABC* 12: 121) (MC).

Mauritania

A visit to the Atar area during 20–27 March 2005 produced the following records. A Eurasian Spoonbill *Platalea leucorodia* was at Akmakou oasis on 24th, a juvenile Golden Eagle *Aquila chrysaetos* west of Chinguetti on 21st, and a Cream-coloured Courser *Cursorius cursor* west of Ouadane on 23rd. Several Blue-naped Mousebirds *Urocolius macrourus* and Crested Larks *Galerida cristata* were seen on 25th–26th. In Toungad oasis, near Atar, Common Bulbul *Pycnonotus barbatus* and Black Scrub Robin *Cercotrichas podobe* were found; the latter also at Terjit oasis. A Cricket Warbler *Spiloptila clamans* was observed between Chinguetti and Ouadane. Desert Sparrows *Passer simplex* were rather common around Chinguetti and Ouadane; several Sudan Golden Sparrows *P. luteus* were also found in the same area. Four African Silverbills *Eudice canicans* were seen at Toungad oasis on 25th (PC).

In January 2006, the long-staying Kelp Gull *Larus dominicanus vetula* from the Banc d'Arguin was seen again on 11th; this bird was first found here in April 1997 and is paired with a Yellow-legged Gull *L. michahellis*. At least 15 Grey-headed Gulls *L. cirrocephalus* were also present. Two Dunn's Larks *Eremalauda dunni* and 15 Desert Sparrows *Passer simplex* were encountered south-east of Bou Lanouar in Dakhlet, Nouadhibou, on 9th. In Adrar, a male Tristram's Warbler *Sylvia deserti*



Brambling *Fringilla montifringilla*
(Claudia Donati)

ticola and 26 Desert Sparrows were found at Tazazmout-es-Shrir on 14th (per *Dutch Birding* 28: 113–117).

Morocco

Records from January–March 2006 include the following. Six Dark-bellied Brent Goose *Branta bernicla* were at Khnifiss lagoon, in the south, on 10 March (per *Birding World* 19: 103). A male American Wigeon *Anas americana* was reported from Oued Massa, south of Agadir, on 15–26 January, with another at Marrakech on 21 January. A Red-knobbed Coot *Fulica cristata* was photographed at Oued Massa, in the south, where it is a rarity. A Laughing Gull *Larus atricilla* was found at Aghroud, near Agadir, on 1 March. The fourth Franklin's Gull *L. pipixcan* for Morocco was a first-winter at Oued Souss, Agadir, on 17 February (per *Dutch Birding* 28: 110–118). A first-summer Franklin's Gull was photographed at the same site on 6 April (Fig. 4; *AvdB*, VS). A second-winter and two third-winter Great Black-backed Gulls *L. marinus* were found at Khnifiss lagoon on 20 January (per *Dutch Birding* 28: 110–118); one was at Cap Juby on 10 March (per *Birding World* 19: 103).

A flock of five Pale Crag Martins *Hirundo (Ptyonoprogne) obsoleta* of the race *presaharica* was encountered in a deep wadi west of Aouinet Torkoz, between Tata and Tantan, on 10 January; this species is not often reported with certainty in Morocco, because of confusion with Eurasian Crag Martin *H. rupestris* (per *Dutch Birding* 28: 49). The song of (Eastern) Olivaceous Warbler *Hippolais pallida* of the race *reiseri*

was recorded at Rissani on 4 April; the occurrence of this race in Morocco is poorly documented (*AvdB*). A Brambling *Fringilla montifringilla* was at Dayet Aaoua, Ifrane, on 13 February, and a Yellowhammer *Emberiza citrinella* in the Souss valley near Oulad Berhyl on 17 March (per *Birding World* 19: 103).

Mozambique

A Greater Frigatebird *Fregata minor* was seen at Ponta da Barra on 12 January (*MBy*), with further sightings until the 17th, and a Lesser Frigatebird *F. ariel* at the same site on 14 January (*MBy*), with another at Ponta do Ouro on 13 January (*EE*). Crab Plovers *Dromas ardeola* were reported from Pomene on 18 November (one; *BMG*), from Barra Lodge, Inhambane, on 4 December (a large flock; *AB*) and from Ponta da Barra on 11 January (more than 200; *MBy*). Six Eurasian Oystercatchers *Haematopus ostralegus* were seen at Rio Maria on 1 January (*RdR*) and two Broad-billed Sandpipers *Limicola falcinellus* at Ponta da Barra on 16 January (*MBy*).

A Franklin's Gull *Larus pipixcan* in full breeding plumage was observed at Lagoa Piti in Maputo Special (Elephant) Reserve on 25 May 2006; this is possibly the same bird that was reported earlier from Sodwana Bay, South Africa, and may well constitute the first record for Mozambique (*AH*).

Namibia

In mid-October 2005, the following were observed off Namibia's coast: Wandering Albatross *Diomedea exu-*

lans, Northern Royal Albatross *D. (epomophora) sanfordi*, Dark-mantled Sooty Albatross *Phoebetria fusca*, two Spectacled Petrels *Procellaria (aequinoctialis) conspicillata* and nine Red (Grey) Phalaropes *Phalaropus fulicarius* (*PW, MG*).

At Walvis Bay, a Eurasian Oystercatcher *Haematopus ostralegus*, two Black-tailed Godwits *Limosa limosa* and up to six Red-necked Phalaropes *Phalaropus lobatus* were seen on 16 December 2005 and last reported on 29 January (*KW*). A Common Redshank *Tringa totanus* found at Swakopmund Saltworks on 8 January was still present at the end of February (*MBo*). A Red-necked Phalarope was at Swakopmund Saltworks on 20 January and a Red (Grey) Phalarope at Walvis Bay the next day (*CV*).

Niger

The following records are from the period October 2005–May 2006. At the Mare de Guidan Kara wetland, 30 km north-west of Birni N'Konni, the following species unusual for Niger were seen on 16 January: two Black-necked Grebes *Podiceps nigricollis*, six Eurasian Wigeon *Anas penelope*, four Common Teal *A. crecca*, three Common Pochards *Aythya ferina*, 262 Ferruginous Ducks *A. nyroca* and three Tufted Ducks *A. fuligula*; the water in the wetland is too saline for livestock and for agriculture (*JB*). On a photograph taken in November 2005 (by *MHa*) at a wetland near Damana, between Baleyara and Filingué, a White-backed Duck *Thalassornis leuconotus* (third record for Niger) and a Hottentot Teal *Anas hottentota* (c.10 previous records) can



Bat Hawk *Macheiramphus alcinus* (Pete Leonard)

be seen. It is reported that three Hottentot Teal were shot near Zinder during sampling of wild birds for the H5N1 avian influenza monitoring in February–March (JB, MHa, BK, WM).

A Bat Hawk *Macheiramphus alcinus* was seen attacking fruit bats in Niamey on 2 October, and two individuals were observed at dusk near the Grand Hotel on 25 May (BP). The Montagu's Harrier *Circus pygargus* expedition in January–February 2006 quadrupled the number of observations of the species in Niger to more than 100. Fifty Lesser Kestrels *Falco naumanni* were counted in the Dallol Bosso at Birni N'Gaoré on 15 January (JB).

A Little Crake *Porzana parva* was photographed at Goudel rice fields ($13^{\circ}53'N\ 02^{\circ}05'E$) on 5 March (Fig. 5). Two Temminck's Stints *Calidris temminckii* were seen at Daïkan-Daïberi ($14^{\circ}18'N\ 01^{\circ}47'E$) on 18 February (BP). Four Great Snipe *Gallinago media* and a Red-throated Pipit *Anthus cervinus* were at Saga, near Niamey, on 7 January. A single White-bellied Bustard *Eupodotis senegalensis* was seen near Birni N'Konni on 18 January and many were heard near Guidan Roumji, north-west of Maradi, on 19 January (JB). On 18 February, during a fall of migrants due to very dusty conditions, a Cardinal Woodpecker *Dendropicos fuscus* was reported near Tillabéri (BP); the only previous report of this species from Niger is in a publication from 1950 on Tamashiq names of animals, without details (JB). An Orphean Warbler *Sylvia hortensis* was found at Daïberi on 18 February (BP). On 19 January, a Fiscal Shrike *Lanius collaris* was observed near Guidan Roumji, and a Red-backed Shrike *L. collurio* east of Birni N'Konni (per JB).

Nigeria

During a birding trip in October 2005, a Red-chested Flufftail *Sarothrura rufa* was heard calling in the grounds of the International Institute for Tropical Agriculture (IITA) at Ibadan on 13–14th; this species is very rare in Nigeria, with

only two previously published records. Bocage's Bush-shrike *Malacorhynchus bocegei*, for which there are no previously published records, was found at Belekiti, on the Obudu Plateau, near the border with Cross River National Park, on 21st (DB).

Rwanda

An African Pitta *Pitta angolensis* was found in a garden in the town of Musanze, Ruhengeri, Northern Province, on 19 May 2006, and stayed for several days. It fed on a wide variety of insects and worms and could be approached to within 2 m (MCI).

Senegal

Records from December

2005–March 2006 include the following. A Northern Gannet *Sula bassana* and a Bridled Tern *Sterna anaethetus* were observed at the Îles de la Madeleine on 17 February; this is a very early date for the latter species (PT). An exceptionally large flock of 117 Black Storks *Ciconia nigra* was seen in the Ndialé on 6 February. A flock of c.1,200 Lesser Flamingos *Phoeniconaias minor* was on Grand Lac in Djoudj National Park (=NP) on 11 February (RC).

A Blue-winged Teal *Anas discors* was with hundreds of Garganey *A. querquedula* and Northern Shovelers *A. clypeata* at Lac Youl, near Malika, east of Dakar, on 3 March (LJ). A male American Wigeon *A. americana* remained in Djoudj NP from 20 December until at least mid-March (AF, PT). It was joined by another male on 19–20 January; the only previously documented record for West Africa (and for the Afrotropics) was also in the Djoudj, in February 1975. Other records from Djoudj NP include a pair of Gadwall *A. strepera* on 20 January, with the mid-January count noting three; this species is a very rare visitor to the region. Also there was a flock of c.15 Ferruginous Ducks *Aythya nyroca* on 19 January; this Palearctic migrant is a rare visitor to the area (NB).

A single flock of at least 170 Black Crowned Cranes *Balearica pavonina* was observed in the Ndialé, on 4

February, with a total of over 250 counted the same day (RC). A Greater Sand Plover *Charadrius leschenaultii*, seen well in Djoudj NP on 13 February, is a new species for the park (PT). A Laughing Gull *Larus atricilla* was noted at Siné Saloum on 28 December (AF).

In the southern part of Ndialé Faunal Reserve, a Kordofan Lark *Mirafra cordofanica* was found on 14 February (RC). A Fulvous Babbler *Turdoides fulvus* was seen well near Richard-Toll in January; the species was found breeding at this site in 2004 (NB). A Cinnamon-breasted Rock Bunting *Emberiza tahapisi* was encountered at Popenguine on 18 February (PT).

Seychelles

Reports received by Seychelles Bird Records Committee during the period January–April 2006 include two firsts for the archipelago: a male Eurasian Wigeon *Anas penelope* at Dauban marsh, Silhouette, from 17 February to 1 March, and a Garden Warbler *Sylvia borin*, which came aboard a cruise ship between Aldabra and Alphonse on 27 March (AS).

Socotra

During a visit from 13 to 19 January 2006, 89 species were recorded, including the following vagrants. Two Great Cormorants *Phalacrocorax carbo* were seen offshore Hadibu on 14th, with another on 18th and one at Qalansiyah on 16th; this species may be overlooked among the large numbers of Socotra Cormorants *P. nigrogularis*. Four Mallard *Anas platyrhynchos* and a single Intermediate Egret *Egretta intermedia* were at Khor Sirhin, with a second egret there on 18th. Single Indian Pond Herons *Ardeola grayii* were found in the mangroves at Shoep on 17th and in the palms around Khor Sirhin on 18th. At the latter site, a Yellow Bittern *Ixobrychus sinensis* was also present. An immature Sacred Ibis *Threskiornis aethiopicus* was observed at Khor Dilish on 18th; this bird, apparently the first for Socotra, had been at this site for some weeks. A Marsh Sandpiper *Tringa stagnatilis*

and a Ruff *Philomachus pugnax* were at Khor Sirhin. Another Ruff, a Collared Pratincole *Glareola pratincola* and an immature Great Black-headed Gull *Larus ichthyaetus* were seen at Khor Qalansiyah on 16th; the latter was apparently also new for the island. Another first was a Slender-billed Gull *L. genei* found at Khor Qadab on 15th. A Whiskered Tern *Chlidonias hybrida* was at Khor Qalansiyah on 16th (DS).

South Africa

Records from October–December 2005 not mentioned in previous Recent Reports include the following. A Blue Petrel *Halobaena caerulea* and the third Buller's Albatross *Thalassarche bulleri* for southern African waters were recorded 180 nautical miles south of Cape Agulhas in mid-October (MG). On pelagic trips out of Cape Town, Wandering Albatrosses *Diomedea exulans* were seen on 30 October (BR) and 5 and 15 November (per TH), with a Grey Petrel *Procellaria cinerea* and two Red (Grey) Phalaropes *Phalaropus fulicarius* on 5 November (per TH). On 14 November, a Red-tailed Tropicbird *Phaethon rubricauda* was at Bird Island in Algoa Bay, Eastern Cape, where two Australian Gannets *Sula serrator* and a Wedge-tailed Shearwater *Puffinus pacificus* were still present (per TH). Another Red-tailed Tropicbird flew over Knysna lagoon, Western Cape, on 19 December (NP). A Slaty Egret *Egretta vinaceigula* was reported from Ndumo Game Reserve, KwaZulu-Natal, on 26 November (JA); it was still present on 19 December (per TH).

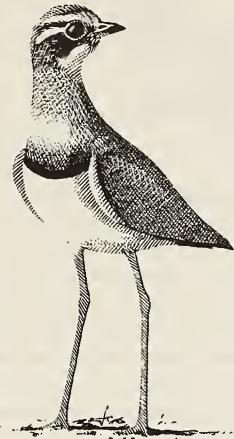
European Honey Buzzards *Pernis apivorus* were reported from many localities throughout the country: Middelburg, Mpumalanga, 24 October (JBs), near Entabeni, Limpopo Province, 24 November–10 December (per TH), Ndumo Game Reserve, KwaZulu-Natal, 28 November (JA), Biesbokfontein, 27 November (EM), Hluhluwe Game Reserve, KwaZulu-Natal, 29 November (DS), Trichardtpoort, 1 December (EM), Delta Park,

Johannesburg, 4 December (GL), Richards Bay, KwaZulu-Natal, 6–15 December (AH, per TH), Constantia Green Belt, Cape Town, 10 December (DW), Rietvlei Nature Reserve, Gauteng, 10 December (RG), and Cathedral Peak, KwaZulu-Natal, 14 December (BS). Eurasian Marsh Harriers *Circus aeruginosus* were seen at Seekoeivlei in Memel, Free State, on 15 November (one: PL, BL), at Marievale Bird Sanctuary, Gauteng, on 29 November (a male, later joined by a female and both remaining well into December: KR, CK, per TH), and at Ntsikeni Nature Reserve, Eastern Cape, on 10–17 December (CW, per TH).

A Pectoral Sandpiper *Calidris melanotos* was found at St Lucia, KwaZulu-Natal, on 29 November (JA). Black-tailed Godwits *Limos limosa* stayed at Marievale Bird Sanctuary, Gauteng, from 26 November to 10 December (GK, per TH), and West Coast National Park, Western Cape, on 20 December (AB-S). Single Common Redshanks *Tringa totanus* were reported from Groblersdal, Mpumalanga, on 30 October (DSw), West Coast National Park on 18 November (FG), and Velddrif, Western Cape, on 23 November (JF). Red-necked

Phalaropes *Phalaropus lobatus* were at Rocher Pan, Western Cape, on 23 November (two: JF), Nkaya Pan in Kruger National Park on 1 December (PL), and Still Bay Bird Sanctuary, Western Cape, on 9–15 December (HL, per TH). A Red Phalarope was at Marievale Bird Sanctuary, Gauteng, on 7–8 December (AT).

The long-staying Yellow-billed (Greater) Sheathbill *Chionis alba* remained in Cape Town harbour until at least 12 December (per TH). The regular Common Black-headed Gull *Larus ridibundus* at Driftsands Reclamation Works in Port Elizabeth, Eastern Cape, was back on 11 November and remained until at least 22 November (per TH); one in breeding plumage was seen in Durban Bay, KwaZulu-Natal, on 15 December (AM). The long-staying Gull-billed Tern *Gelochelidon nilotica* at Kromme Rivier estuary, St Francis



Bronze-winged (Violet-tipped)
Courser *Rhinoptilus chalcopterus*
(Pete Leonard)

Bay, Eastern Cape, was still present on 27 October (from 3 September) (BG); another was found at Redhouse Salt Pans, Port Elizabeth, on 17 November (PW).

Tanzania

An immature male Montagu's Harrier *Circus pygargus* was observed in the Serengeti on 26 June 2005 (EF).

Records from March 2006 include the following. At least 200 Black-necked Grebes *Podiceps nigricollis* were counted on Lakes Ndutu and Masek on 17–18th; the species appears to occur erratically and in response to rain. A Rufous-breasted Sparrowhawk *Accipiter rufiventris* was seen over the Ngorongoro Crater on 11th and a pair over Serena Lodge on 13th; this species appears to be rare in northern Tanzania. Groups of Lesser Kestrels *Falco naumannni* were observed from Tarangire to the Serengeti, with 250+ in the Seronera River area on 16th. A male Hartlaub's Bustard *Eupodotis hartlaubii* was seen in the Serengeti on 16th; there appears to have been a recent influx of this species into the Serengeti and the question is whether this is a new or a previously overlooked phenomenon. Two Bronze-winged (Violet-tipped) Couriers *Rhinoptilus chalcopterus* were found at

Ndutu on 17–18th. Two Black-winged Pratincoles *Glareola nordmanni* were with a flock of Collared Pratincoles *G. pratincola* over the lake at the Ngoitokitok picnic site in the Ngorongoro Crater on 11th; this Palearctic migrant is a rare visitor to this part of Tanzania (NB). A Common Sand Martin *Riparia riparia* was seen at Ndutu on 18th (NR). An Upcher's Warbler *Hippolais languida* was identified in Tarangire on 9th. Also there was a Barred Warbler *Sylvia nisoria* on 8th, with another at Olduvai Gorge on 11th (NB). A Common Whitethroat *S. communis* and a male Semi-collared Flycatcher *Ficedula semitorquata* were seen at Naabi Hill, Serengeti, on 3rd (TG).

Tunisia

In October 2005–March 2006, the following records were reported. At Sabkhat Sedjoumi, 20,000 Greater Flamingos *Phoenicopterus (ruber) roseus* were counted on 22 October. On 13 November, 31 Glossy Ibises *Plegadis falcinellus* were at Lebna reservoir. In January, 5,500 wintering Common Cranes *Grus grus* were counted in the regions of Tunis, Kairouan and Sfax. Twenty Temminck's Stints *Calidris temminckii* were seen at Sebkhet Soliman on 5 March (HA).

Uganda

The following records are from February 2006. Two Blue Quails *Coturnix adansonii* were observed near Masindi on 25th. An unusually large flock of 60 Stone-curlews (Eurasian Thick-knees) *Burhinus oedicnemus* was claimed from the north bank of the Nile in Murchison Falls National Park on 23rd; this species is an occasional winter visitor to Uganda. A Ruddy Turnstone *Arenaria interpres* was seen on the Kazinga Channel, in Queen Elizabeth National Park, on 28th (DH). A pair of African Green Broadbills *Pseudocalyptomena graueri* was nest-building in Bwindi Impenetrable Forest on 16th (TG). Two White-browed Sparrow Weavers *Plocepasser mahali* were at a

nest in Murchison Falls National Park on 23rd (DH).

Zambia

A Spotted Crake *Porzana porzana* was found at Kasanka National Park, on 20 January 2006, and a Yellow-bellied Waxbill *Coccycygia quartinia* at Mutinondo Wilderness, on 23rd. Both are new site records (MB). On 3 February 2006 a Western Reef Heron *Egretta gularis schistacea* was found near Kafunta River Lodge, near South Luangwa National Park, and stayed several days (Fig. 6; GP). This has been accepted as a first for the country.

Zimbabwe

A Pectoral Sandpiper *Calidris melanotos* was found in Mana Pools National Park on 26 October 2005 (TW). About 2,000 Amur Falcons *Falco amurensis* were counted at Marondera early in the morning of 28 February 2006 (AN); subsequent late-afternoon counts at this roost revealed that no less than 25,000–30,000 birds were present (IR et al.). In Harare, 28 Blue Swallows *Hirundo atrocaerulea* were seen flying north on 2 March (NC per Babbler 71). A pair of Black-throated Wattle-eyes (Wattle-eyed Flycatchers) *Platysteira peltata* was found in a Harare garden in late February (per Babbler 71).

Records were collated by Ron Demey from contributions supplied by Jon Anderson (JA), Hichem Azafza (HA), Nicola Baccetti (NBA), Neil and Liz Baker (N&LB), Clive Barlow (CB), Alan Bedford-Shaw (AB-S), Mark Beevers (MB), Daniel Bengtsson (DB), Arnoud van den Berg (AvdB), Mark Boorman (MBo), Maans Booyens (MBy), Nik Borrow/Birdquest (NB), Johan Boshoff (JBs), Chris Brewster (CBr), Joost Brouwer (JB), Annemie Buys (AB), Mamadi 3 Camara (M3C), Paul Cardy (PC), Ngoni Chiweshe (NC), Marcell Claassen (MCL), Callan Cohen (CC), Mohamed Balla Moussa Conde (MCo), Mary Crickmore (MC), Richard Cruse (RC), Steve Dudley (SD), Ehren Eksteen (EE), John Fannin (JF), Rob Felix

(RF), Amine Flitti (AF), Erik Forsyth / Rockjumper Birding Tours (EF), Jeremy Gaskell (JG), Fraser Gear (FG), Rihann Geyser (RG), Olivier Girard (OG), Meidad Goren (MG), Thomas Gottschalk (TG), Bryan Groom (BG), Adrian Haagner (AH), Pete Hancock (PH), Trevor Hardaker (TH), Matthias Hartmann (MHa), David Hoddinott/Rockjumper Birding Tours (DH), Menno Hornman (MH), Colin Jackson (CJ), Lukas Jonkers (LJ), Clive Kaplan (CK), Namory Keita (NK), Gordon King (GK), Ben Koks (BK), Ron Lahr (RL), Bruce Lawson (BL), Peter Lawson (PL), Hans Linde (HL), Geoff Lockwood (GL), Athol Merchant (AM), Etienne Marias (EM), Graham McCulloch (GMC), Byron McGaw (BMG), Mark Muller (MM), Wim Mullié (WM), Ann Nason (AN), Menotti Passarella (MP), Bruno Portier (BP), Greg Poole (GP), Neil Puntis (NP), Alessio Quaglierini (AQ), Hugo Rainey (HR), Kevin Ravno (KR), Nigel Redman (NR), Ian Riddell (IR), Detlef Robel (DR), Barrie Rose (BR), Rob de Rover (RdR), Kev Roy (KRo), Dave Sergeant (DS), Valéry Schollaert (VS), Adrian Skerrett (AS), Ben Smith (BS), Dan Sonnenberg (DS), Kadiatou Soumah (KS), Dewald Swanepoel (DSw), Neil Taylor (NT), Marco Thoma (MT), Allon Traub (AT), Patrick Triplet (PT), Steph Tyler (ST), Colin Valentine (CV), Filip Verbelen (FV), Jaap van der Waarde (JvdW), Keath Wearne (KW), Charl Weitz (CW), Richard White/Rockjumper Birding Tours (RW), Phil Whittington (PW), Eddie Williams (EW), David Winter (DW), Tony Wood (TW), Ignacio Yáñez (IY), John van Zyl (JvZ) and from Africa—Birds & Birding, Babbler, Birding World, Dutch Birding, capebirdnet, SARareBirdAlert and www.zestforbirds.co.za.

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Reviews



Birds of Africa, Vol. VII

C. Hilary Fry & Stuart Keith (eds.), 2004. London, UK: Christopher Helm. Hardback, xxii + 666 pp, 36 colour plates, line drawings, maps. ISBN 0-7136-6531-9. UK£135.

Like many similar projects, *The Birds of Africa* has had a protracted and at times troublesome gestation. From the initial concept of a two-volume work in the 1960s, to the publication of the first volume in 1982 and up until this final tome, the project has seen numerous changes, including a new publisher for this volume. There are advantages and disadvantages to such a timescale. The later volumes have benefited significantly from the recent increase in field work and published data, and the early volumes now seem badly out of date.

This seventh and last volume covers the remaining 309 species in six passerine families (Passeridae, Ploceidae, Estrildidae, Vireidae, Fringillidae and Emberizidae) and, at nearly 700 pages with 36 colour plates, it is one of the largest in the series. The first thing one notices on opening the book is yet more design improvements and the overall effect is clean, clear and elegant.

The very readable introduction summarises the project's history and outlines some of the latest changes. For example, the once conservative taxonomic approach of the editors has been influenced by current trends and new species concepts, and splitting has become more liberal. However, the extent of such seems to depend largely on the opinion of the individual authors. The series as a whole comprises 2,134 species yet the editors admit that if they were to start anew this figure would rise to well over 2,250.

Some of the systematic decisions may raise a few eyebrows. The use of the grey-headed sparrow superspecies to illustrate the complexity of such decisions is very appropriate and the authors choose to split this assemblage into five species. In this case, there are at least a couple of recent references to support such a move, but in others there are frustratingly few, and one wonders whether some decisions are a little premature. For example, neither the splitting of Black-headed *Alario alario* and Damara Canaries *A. leucolaemus* nor that of Cape *Emberiza capensis* and Vincent's Buntings *E. vincenti* are supported by a substantial contemporary reference. Other splits that will engender debate are those of the rufous sparrow complex (here considered six species) and Kandt's Waxbill *Estrilda kandti* (from Black-headed Waxbill *E. atricapilla*). Perhaps easier to accept are Black-lored Waxbill *E. nigriloris* (from Common Waxbill *E. astrild*) and Red-billed Pytilia *Pytilia lineata* (from Red-winged Pytilia *P. phoenicoptera*), as the rationale for these splits has previously been published by others (see Dickinson 2003).

With regard to vernacular bird names, it is surprising that many alternative names are omitted. For example, Red-billed Pytilia is also known as Lineated Pytilia, but this is not included. Also rather irritating is the lack of explanation given for certain obscure name changes. Baka Indigobird, for instance, has become Barka Indigobird. As if indigobirds were not confusing enough . . .

Curiously, two vagrants have not been included: Red-eyed Vireo *Vireo olivaceus* (recorded in Morocco) and Yellow-breasted Bunting *Emberiza aureola* (Egypt), both of which were mentioned in the respective coun-

try's avifauna (Thévenot *et al.* 2003, Goodman & Meininger 1989) and BWP (Cramp & Perrins 1994a,b).

Martin Woodcock's plates have continued to improve over the course of the series and most are well designed and a pleasure to browse. They are, however, not identification plates and birders hoping for fresh help with female weavers and widows will be disappointed. This is a pity as there are accurate descriptions of many of these plumages in the text. Similarly, the subtleties of the grey-headed sparrow complex are simply not apparent and birders in East Africa are now likely to be more confused. The non-breeding male Yellow Bishop *Euplectes capensis* should not have a pale central crown-stripe but errors such as this are few.

No doubt, financial and space restrictions dictated the range of racial and age-related plumages that could be depicted, but many species are represented by only one or two figures. Some very distinctive plumages have not been illustrated, e.g. female Gola Malimbe *Malimbus ballmanni* and female Yellow-mantled Weaver *Ploceus tricolor* of the race *interscapularis* (with black underparts). Regional field guides often illustrate more plumages, whereas one would rather expect the opposite to be the case. For example, for 28 of the 49 estrildid species occurring in western Africa, Borrow & Demey (2001) illustrate the juvenile plumage, compared to only seven in this volume. No attempt has been made at most female indigobirds, but on present knowledge this is probably wise.

The colours on some plates are slightly too dark (e.g. the Green Twinspots *Mandingoa nitidula* on plate 20) whilst others are rather sat-

urated (see e.g. the Oriole Finches *Linurgus olivaceus* on plate 31) and this may well be the result of the printing. However, the poor Dusky Crimsonwing *Cryptospiza jacksoni* (plate 17) is much duskier than it deserves and the petronias (plate 1) show yellow throat patches with a luminosity never evident in the field. In both cases, the figures appear alongside others with accurate coloration.

Ian Willis's line drawings are superb and his depictions of weaver and waxbill nests are exquisite. Hilary Fry's page of estrildid and viduid mouth markings is also an unusual and fascinating delight, but one craves more explanation. It seems a rather random assortment and a missed opportunity to explain the significance of the similarities and differences in the markings and also the imitation found in brood parasitism.

It is easy to become absorbed in the species accounts. They are well written and not as dry as one might expect. This is particularly true of the General Habits sections. The Range and Status sections are unavoidably list-like but there is inconsistency in the way ranges are described. Sometimes the detail for certain countries is staggering, yet at other times it simple states 'as mapped' as if the author had run out of steam. Occasionally even this level of detail is forsaken as in the case of the Zambian range of Parasitic Weaver *Anomalospiza imberbis* for which it simply states 'Zambia' and nothing more, yet the map clearly shows an intriguingly patchy distribution.

As in previous volumes, the referencing in this section is inconsistent. Why some data have been referenced whilst others have not remains mysterious. To give just one example, the distribution of Crimson Seedcracker *Pyrenestes sanguineus* in Guinea (p. 322) reads 'reported from Foulayah, Haut Niger Nat. Park (Nikolaus 2000) and Macenta . . .' One wonders why the second locality has been referenced but not the first and third, localities taken from two other papers, also published in *Malimbus*,

in 1995 and 1994 respectively. Similar cases can be found in almost every species account.

Sites are sometimes listed randomly, as if the author did not know (or care) where they are located. See, for example, the localities mentioned for Preuss's Weaver *Ploceus preussi* in Côte d'Ivoire (p. 188), given as 'Mt Péko, Bossematié, Yapo, Sipilou, Taï,' whereas a logical sequence, from west to east, would have been 'Sipilou, Mt Péko, Taï, Yapo, Bossematié.' Another inconsistency can be found in the spelling of certain site names. For instance, Marahoué National Park in Côte d'Ivoire is variously written Marahoué, Maraoué and even Maroué within this volume. Surely, in our electronic age, this could have easily avoided.

The maps are significantly better than those in previous volumes, reflecting the increased collaboration with a number of atlas projects. Distributional errors are inevitable in a work of this scope, but these seem to be relatively few. For Zimbabwe, the text mentions the occurrence of Northern Grey-headed Sparrow *Passer griseus* in Hwange National Park, but this is not marked on the map. Bertram's Weaver *Ploceus bertrandi* is mapped and described as occurring around the south-western corner of Lake Tanganyika which is erroneous. The Zambian distribution of Baglafecht Weaver *Ploceus baglafecht*, on the other hand, is correctly described in the text, yet inaccurate on the map, with a dot placed somewhere in the region of Kasama, c.300–400 km from the nearest known locality. Similar mistakes are to be found on several other maps such as Yellow-backed Weaver *Ploceus melanocephalus* (not known from south of Lake Bangweulu) and Long-tailed Widowbird *Euplectes progne* (not known from the east side of Lake Mweru).

In some instances, the mistakes are more frustrating as they highlight the fact that published material has been overlooked. There is no mention of Scaly-fronted Weaver *Sporopipes squamifrons* occurring in Zambia, despite the species being



first recorded in 1994 and since being found to be not uncommon and breeding in several areas. A record of Orange-cheeked Waxbill *Estrilda melpoda* from Mwinilunga and further records of Compact Weaver *Pachyphantes superciliosus* from the same area have also been omitted and this should not have been the case at a time when e-mail was operational and correspondence with local field workers relatively straightforward. It is also surprising that the only distributional comment for Fan-tailed Widowbird *Euplectes axillaris* for Zambia is 'generally below 900 m.' This is misleading as this species is absent from the low-lying valleys and its distribution is centred on the major wetland areas of the plateau.

On the map for the Red-headed Weaver *Anaplectes rubriceps* (p. 97) there is a question mark over Côte d'Ivoire's Comoé National Park, even though details of its occurrence were published in 2000. The accompanying text states 'Mapped by Borrow & Demey (2001) in broad band through SE Senegal, NE Guinea, extreme SW Mali and N Ivory Coast, but we do not know of any published records from those areas.' However, several unpublished records do exist and a simple e-mail to one of the authors would have revealed this.

In other sections of the text, few other points arise. Cases of parasitism by African Cuckoo *Cuculus gularis* are mentioned for both Northern *Passer griseus* and Southern Grey-

headed Sparrow *P. diffusus*. Both seem highly unlikely hosts and if the parasites were correctly identified, it was surely a case of 'egg-dumping.' For *P. diffusus* there is not even a reference, which is surely essential with such an unusual case. There is no mention of Chestnut-backed Sparrow-weaver's *Plocepasser rufoscapulatus* fondness for escarpment miombo, a point that is clear in the key reference and one would expect a more thorough approach when dealing with poorly known species such as this. Very little is said about the seasonality of Clarke's Weaver *Ploceus golandi* on the Kenyan coast, yet this too is well known and published. The text implies that Dark-backed Weavers *P. bicolor* may undergo extensive dispersal on the basis of a few records along the Zambezi Valley, yet there is no reason to suppose the bird is not simply a scarce resident in such areas.

Finally, it seems odd how few errata have ever been published in the series. Here, only seven errata are mentioned for the previous volume and a few of these seem comparatively trivial. Why mention that '*Dicrurus ludwigii* is mapped slightly too far north in Ghana' when numerous maps with far greater inaccuracies are ignored?

Despite the points raised here, this volume is a new benchmark and a magnificent achievement. The editors and authors deserve our congratulations and gratitude. It will surely remain a primary reference for African ornithology for many years to come and one only hopes that the cost does not prevent it from reaching as many African libraries as possible.

Pete Leonard and Ron Demey

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Roberts Birds of Southern Africa (seventh edn.)

P. A. R. Hockey, W. R. J. Dean & P. G. Ryan (eds.), 2005. Cape Town: John Voelcker Bird Book Fund. 1,296 pp, 80 (un-numbered) colour plates. Hardback. ISBN 0-620-34053-3. UK£110.

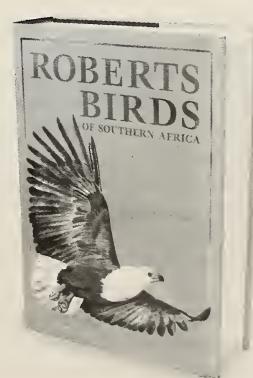
This enormous book (it weighs 5.5 kg, as our postman can testify) is the seventh in a line of handbooks which have served ornithologists and bird-watchers well in southern Africa for more than 60 years.

An important change overall between the Southern African *Atlas* (Harrison *et al.* 1997), earlier versions of Roberts and this one is in the radical modifications of the sequence of families and species, and some of the nomenclature. This move may not be popular with a lot of users, for obvious practical reasons (albatrosses and shearwaters are now the last of the non-passerines, appearing immediately before the pittas!). It may also be considered unwise, as so many of these changes are still tentative.

Of some 50 introductory pages, the bulk is occupied by a detailed explanation of generic characters—quite a useful innovation. Sections on environment and biogeography are, however, reduced to four pages; even though the word 'biome' is mentioned once, it is surprisingly not defined nor used anywhere in this book. A list of endemic or near-endemic species presented on p. 15

could usefully have been situated in a pan-African context. There is no general analysis of important topics such as migration, breeding seasonality or conservation. This lack of perspective is to some extent attributable to the large number of authors involved and the unevenness of the specific treatments, but one feels nevertheless that the result as a whole falls rather short of expectations.

Those familiar with the Southern African *Atlas* will immediately recognise the maps (basically a reduced, monochrome version of those published in the *Atlas*) and several of the sections are very similar—especially distribution (shortened here), habitat (without the cumbersome vegetation cum geographical bar-graphs), movements and conservation. The degree of similarity of these sections depends to some extent on the author (there have been some changes since the *Atlas*). Other sections developed in more detail here concern identification (morphology, confusing species), voice, general habits, food, breeding behaviour and season, measurements, and geographical variation where appropriate. Compared to the shorter preceding versions of *Roberts* written by Maclean (1985, 1993), one major distinction and improvement is the large number of references cited throughout the text, with the use of numerical superscripts; each species account terminates with a reference list and full citations are given at the end of the book for each species (hence a certain amount of duplication). The index gives pages only for



the species account and the literature citations, whereas one can find the page with the relevant colour plate listed directly next to the species heading (although this fact is not specified in the introduction). There is no cross-reference between the colour plate and the species text, nor (more annoyingly) between the text and the full literature citations.

Plates. These are all new since those of Maclean (1985, 1993). They are apparently not aimed at aiding identification, in the way that field guide plates are (we understand from Hugh Chittenden *in litt.* that a *Roberts* field guide is in the pipeline). Non-breeding and female plumages of sunbirds, weavers, bishops, whydahs and widowbirds are not shown, nor male plumage of Painted Snipe *Rostratula benghalensis*, or the important, distinctive immature plumage of species such as Starred Robin *Pogonocichla stellata* or White-backed Night Heron *Gorsachius leuconotus*. Flight patterns of waders, raptors, nightjars etc. are not usually shown either, and raptors appear in varying postures not directly comparable. If indeed the plates are presented here mainly for decorative reasons, one may regret the poor quality of some. Whilst the work of G. Arnott, A. Barlow, A. Clarkson, R. J. Cook and C. van Rooyen appears to us pleasant (although Arnott's colours are generally too pale and some of van Rooyen's raptors too heavily marked or coloured, cf. the red bars of African Cuckoo Hawk *Aviceda cuculoides*), other plates are not a great success. Two particular artists over-emphasise glossiness (even the non-glossy doves, white-eyes, plain cisticolas and starlings [e.g. Wattled Starling *Creatophora cinerea*] are shining in an unnatural way). Three artists have a style that exaggerates feather contours, which affects particularly ducks, francolins, crakes, cranes, one of the two heron plates, pigeons, turacos, cuckoos, bee-eaters, rollers, hornbills and many passerines. Plates by K. Newman (*in* Maclean 1985, 1993), especially of francolins, crakes, swifts and swallows, bee-eaters, kingfishers and starlings seem to us supe-

rior to most of those redone for this edition. K. Newman's raptors, waders, larks and robin-chats were also pretty good, and it is regrettable all these were redone.

We discuss below the various sections, standardised for most species (using, for illustration, the species names and spellings utilised in this new book).

Following the species' heading, there follows an often-detailed Identification section, including juvenile plumage and confusing species. In the absence of colour plates showing these various plumages, this section will best serve someone who has a bird in the hand.

The section on Voice differs from Maclean (1993) mainly in having dropped the spectrographic illustrations. We find this regrettable, especially as interpretation of these was aided by onomatopoeic descriptions above the sonograms, thus even the non-specialist could understand them. Vocal descriptions rarely include comparisons between similar taxa: thus the fact that the songs of Eurasian and African Reed-warblers *Acrocephalus scirpaceus* and *A. baeticus* are indistinguishable is not mentioned. Unfortunately, no reference is made to the extensive audio records published for the region by Guy Gibbon (e.g. Gibbon 1991).

Distribution. The *Atlas of Southern African Birds* (Harrison *et al.* 1997) lacked a gazetteer of localities, and this serious drawback is still present here; moreover, the maps astonishingly have no coordinates nor a scale. The distribution texts are often very brief and do not usually proffer precise range limits for species with localised distributions, thus there is rarely any interpretation of the maps. For vagrants and several rare migrants, maps are presented for the first time in this work but it is often difficult to relate them to the text. For instance, the text on *Acrocephalus scirpaceus* clearly states that there are no records from Zimbabwe, yet the map shows two crosses in that country. The map of Cardinal Quelea *Quelea cardinalis* shows two crosses, but as mentioned

in the text only one is acceptable, records from the Caprivi area having long been known to be erroneous (see Varden 1999). For Green Tinkerbird *Pogoniulus simplex* there are two records and one question mark on the map, but only one accepted record (and one query) in the text. The map of Angola Swallow *Hirundo angolensis* has as many as four plots, but the author of the text makes it clear there is only one known acceptable record (confirmed by C. N. Sportiswoode pers. comm., who did not see the map pre-publication). This is likely to lead to misinterpretations. All of these new maps (we are informed in the Introduction) originate from a multi-media work, produced by Gibbon (2002), and a field guide (Sinclair *et al.* 2002), neither of which provides any information on the sources of records or the criteria used to judge their accuracy.

Some of the species whose occurrence was rejected or treated as unconfirmed in the *Atlas* (Harrison *et al.* 1997) now appear to be accepted, without any justification being offered: one example is Eleonora's Falcon *Falco eleonorae*, based on the same records as in the *Atlas* (and by the same author), even though these have not been revised by any rarities committee, and one at least had been rejected by authorities in Zimbabwe (Hustler *et al.* 1990). A large proportion of references in support of records comes from unpublished sources, and often no more than the observer's name is mentioned. In some cases, e.g. Greater Frigatebird *Fregata minor*, one of only three inland records of this exceptional vagrant is given without any details: how can these records be interpreted by the scrupulous reader, in the absence of any published South African Rarities Committee report since 1997? Under Madagascar Cuckoo *Cuculus rochii*, the authors fail to mention that several records in southern Africa are based on singing birds, one of which was tape-recorded and published (by Gibbon 1991, under the wrong species Lesser Cuckoo *C. poliocephalus*). The possi-

bility that a small population may well breed in southern Africa should to have been drawn to the reader's attention.

Population & Demography. This section contains much of interest on threats to survival and records of longevity, and presents many regional estimates of density. It could usefully have included a note of caution regarding these last, where figures are often based on survey techniques of doubtful accuracy, given the problems of censusing tropical avifaunas when birds are not individually colour-marked.

Movements & Migrations. For some species this is a detailed and fascinating section, supported by references and with much scope for further research. Accuracy of treatment varies somewhat between authors, and extreme dates of presence or mean dates of passage for strict migrants are not always given.

The section on **Habitat** is usually rather brief; an effort could have been made, perhaps, to define such expressions as 'savanna woodland,' 'open woodland,' 'mesic woodland' in terms of structure, e.g. tree height, percentage cover etc. Reference could have been made to the standard definitions used in botanical works, the most appropriate being White (1983: 44–55).

For most species, **General Habits** are described in detail, e.g. social structure, ecological niche and predatory behaviour.

One of the more extensive sections concerns **Foraging & Food**, and one can find much of interest here, especially when this information is based on local sources. Occasionally, much space is given to long lists of food types recorded in other parts of Africa, and in the case of very marginal species this may seem rather a waste of space; thus under Schalow's Turaco *Tauraco schalowi* (occurring only marginally in the extreme north of the region), some 50 of 58 species of fruit eaten in the montane forests of northern Malawi are listed. English and scientific names (from Dowsett-Lemaire 1988). Moreover, the dry riparian forests of the

Zambezi Valley of southern Africa have virtually nothing in common with the vegetation studied in Malawi; the name of one fig species (*Ficus polita*) has been changed (to *F. bizanae*, a close relative), even though the latter tree does not occur in Malawi. Surely one line summarising fruit types and sizes would have sufficed?

Breeding, behaviour and season, is another important section, but again treatment of key aspects such as seasonality varies greatly between authors. There has been no systematic attempt at analysing breeding seasonality in terms of number of clutches laid each month (a point raised by Dowsett & Dowsett-Lemaire 2001 regarding the *Atlas*); yet in a country with so many observers (and a nest records scheme) one would have welcomed subregional quantitative analyses in a part of the continent where seasonality varies greatly.

There follow: **Conservation** (with attention drawn to species that have fragile populations), **Moult** (seasonality, with some data from outside southern Africa) and **Geographical Variation** (including succinct descriptions of the races recognised), this last supplemented by a **Taxonomic Note** in many of those cases in which opposing views have been expressed. Measurements are presented for various parameters, e.g. wing-length, mass (where weights are available), usually based on southern African material.

Each species account ends with an extremely useful list of relevant, numbered **References**. Here we regret that a significant proportion of the information is taken from general handbooks (e.g. *The Birds of Africa*, Brown *et al.* 1982 *et seq.*), where the original source is often not given or is unclear. It is not always evident that current literature in the main journals has been checked: for instance one Brown-hooded Kingfisher *Halcyon albiventris* is said to have moved more than 200 km in Malawi, based on Benson & Benson (1977), but a subsequent publication by the same authors in *Ostrich*

(Benson & Benson 1979; see Dowsett *et al.* 1997: 156) has been overlooked, which corrected this record and showed it to be no more than a local retrap.

So far we have dealt with points that, allowing for some shortcomings, represent a very great advance in documenting the southern African avifauna. But, for a work that is going to be the standard for several decades, it is regrettable that the nomenclature at subfamily level presents many problems. Readers may acquire the impression there has been splitting of hitherto accepted species for the sake of splitting, that is to say where even the slightest doubt has been suggested, subspecies are raised in rank to species. In several cases the evidence cited points in fact in the opposite direction. One striking example is that of Bennett's Woodpecker *Campetherina bennettii* and Speckle-throated Woodpecker *C. scriptoricauda*: even though Benson (1952) showed pretty clearly that these intergrade where they meet and should be considered conspecific, a view also adopted by Short (1973), they are split here, despite there having been no study anywhere questioning the work of those authorities. Green-backed Camaroptera *Camaroptera brachyura* and Grey-backed *C. brevicaudata* are treated as separate species, although several authors have shown there to be much intergradation between green-backed and grey-backed birds (see references in Dowsett & Dowsett-Lemaire 1993: 362), in what is essentially an almost continuous distribution. The splitting of the Rufous-winged Cisticola *Cisticola galactotes* complex is based on a study of only a few of the populations, which did not take into account the considerable variation in vocal dialects and other characters. That the scientific index is based only on the genus complicates the search for some species' accounts (although generic names used in the previous Roberts and not in this work are cross-referenced).

More serious are numerous errors of citation in the taxonomic sections. We regret having to draw attention to

them here, but an offer to check this aspect of the book long before the publication date was not taken up.

These errors take several forms. The wrong citation may be given (e.g. the species heading for Orange-breasted Bush-shrike *Telophorus sulfureopectus* is in fact that for the race *similis*), or it may be missing (e.g. for Souza's Shrike *Lanius souzae tacitus*). Dates are sometimes wrong: Chinspot Batis *Batis molitor* was named by Küster in 1836, not 1850 (the second edition of the work concerned). *Dryoscopus cubla* (Latham 1801) pre-dates Shaw 1809. There are errors of page number (e.g. Southern Boubou *Laniarius ferrugineus savensis* Pinto 1963 was named in *Mem. Inst. Invest. Cient. Moç.* 5: 47 (p. 19 is that of a reprint), or of volume number (Black-throated Wattle-eye *Platysteira peltata cryptoleuca* Oberholser 1905, *Proc. U.S. Nat. Mus.* was vol. 28: 913, not vol. 29).

Some names have been attributed to the wrong authors; for example, Cardinal Woodpecker *Dendropicos fuscescens camacupae* was described by Bowen in 1930, and not by Roberts. Natal Francolin *Pternistis natalensis neavei* (Mackworth-Praed 1920) is not a Roberts name. Rockrunner *Achaetops pycnopygius* was named by P. L. Sclater alone, not together with Strickland. Yellow-throated Longclaw *Macronyx capensis colletti* Schou was proposed by a German called Schou and not by the Belgian Schouteden (Clancey *et al.* 1987: 29). European Roller *Coracias garrulus semenowi* was named in 1902 by Loudon & Tschusi (full family name: Tschusi zu Schmidhoffen), and not Tschudi (who died in 1889).

There is inconsistent use of parentheses where authors have or have not used the current genus in the original description: Mosque Swallow *Hirundo senegalensis monteiri* Hartlaub 1862 was named in the genus *Hirundo*, so no parentheses should be placed around the author's name, whereas Cape Glossy Starling *Lamprotornis nitens culminator*

(Clancey & Holliday 1951) was named in *Lamprocolius*, thus parentheses are required.

Regarding type localities, that for *Acrocephalus baeticatus cinnamomeus* is north of Lake Albert-Edward, which is the old name for Lake Edward, not Lake Albert. Errors of date here involve Cape Crow *Corvus capensis* amongst others (the date of type locality restriction being 1954, not 1951).

The *International Code of Zoological Nomenclature* has not always been respected in the spelling used. Some examples: Black Saw-wing *Psalidoprocne holomelas* must not be changed to *P. holomelaena* (see David & Gosselin 2002a: 41, no. 197), nor *holomeleana* (as in the Taxonomic Note). In Black-faced Babbler *Turdooides melanops querulus*, because *Turdooides* has to be treated as feminine (David & Gosselin 2002b: 281), *querula* should be used. Among other inconsistencies in the adjectival gender endings of races, several concern the masculine genus *Tchagra*, which should all end in *-us*, in agreement. In Wailing Cisticola *Cisticola lais monticulus*, *-cola* is the correct form, as this is a noun phrase (see David & Gosselin 2002a: 34, no. 137). Giant Kingfisher *Megaceryle maxima* is correct (not *maximus*), as the genus is feminine (even though *Ceryle* is masculine; David & Gosselin 2002b: 268). Red Phalarope *Phalaropus fulicarius* is correct, not *fulicaria* (David & Gosselin (2002a: 17). Yellow-mantled Widowbird *Euplectes macrourus* should be *macroura* (see David & Gosselin 2002a: 42, no. 209). Sabota Lark *Calendulauda sabota vesey-fitzgeraldi* is incorrect (hyphens are not permitted in zoological names). Red-capped Lark *Calandrella cinerea niveni* was named for Mrs C. K. Niven (not Mr Niven), thus must be corrected to *nivenae* (as already noted by Clancey *et al.* 1987: 19).

An attempt has been made to explain the meaning of the scientific names, an interesting innovation that has long existed in Australia (e.g.

Cayley 1971). However, a number of mistakes have been introduced, of which we mention a few here. In Grey Penduline-tit *Anthoscopus caroli* 'Caroli' is not a corruption of Charles, but based on the original Latin *Carolus*, *caroli* meaning 'of Charles' (Andersson). Wire-tailed Swallow *Hirundo smithii* was named after Lt.-Col. Charles Hamilton Smith (1776–1859), and not Andrew Smith. Groundscraper Thrush *Psophocichla litsitsirupa* is not based on a name meaning 'ground scraper,' but is onomatopoeic (Cole 1984). The origin of the name Karoo Scrub-robin *Cercotrichas coryphoeus* has nothing to do with the goddess Diana; it is masculine, Le Coriphée being the leader of a group.

Although taxonomic treatment at the subspecific level is always to a great extent subjective, undoubtedly errors are to be found in the new *Roberts*. Levallant's Cisticola *Cisticola tinniens brookei* Herremans *et al.* 1999 is pre-dated by *C. t. elegans* (Hartlaub & Finsch 1870), also from the Cape (its identity confirmed by Lynes 1930). Eastern Clapper Lark *Mirafra fasciolata deserti* (Roberts 1926) is pre-dated by *Mirafra fasciolata damarensis* Sharpe 1875, and so becomes a synonym.

Although these are points that will concern few readers, nomenclatural accuracy is important in serious ornithology, and such errors are likely to be perpetuated in an apparently authoritative book such as this.

To conclude, this is the most important single work to come from the one part of the African continent which has a long history of ornithological study, an abundant literature and numerous observers in the field, both professional and amateur. It also contains a large proportion of the entire Afrotropical avifauna, and so the book has an importance far beyond the confines of southern Africa. The greatest value of this book is to be found in the detailed accounts of well-studied endemics and other species characteristic of the subregion, with an abundance of ref-

erenced details, especially on food and breeding behaviour. From this review it will be gathered that we are disappointed that it does not do full justice to the knowledge available. Whilst for many species it does provide a very useful bibliography largely lacking in earlier *Roberts*, it is left to the cautious reader to make fuller use of this resource.

Concerning the taxonomic errors mentioned above, a 15-page .pdf is available on request from Dowsett@aol.com. This was made available to the editors of *Roberts*, and we understand that some (though not all) will have been corrected in a reprint.

Françoise Dowsett-Lemaire &
R. J. Dowsett

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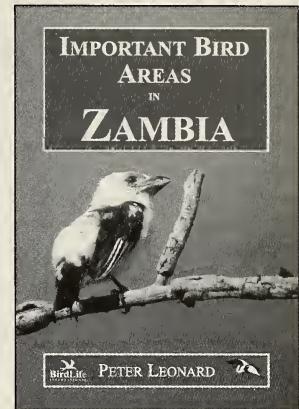
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Important Bird Areas in Zambia

Peter Leonard. 2005. Lusaka, Zambia: Zambian Ornithological Society. 218 pp, colour illustrations, maps. Softback. ISBN 9982-811-01-0. Distributed by NHBS. UK£14.

Important Bird Areas in Africa (Fishpool & Evans 2001) is one of the more useful publications of recent years. Using it as a basis, several countries have had their accounts updated and expanded (Demey 2005), and Pete Leonard's book is the latest in line.

The 38 introductory pages treat in depth such topics as the geography and biomes of Zambia, conservation infrastructure and issues, and the rationale for selection of Important Bird Areas (IBAs) in the country. The body of the book details 42 sites (an increase on the 31 presented by the same author in Fishpool & Evans 2001: 1005–1024), under the classic headings of site description, notable birds, other flora and fauna, and conservation issues. A very useful innovation (not featured in Fishpool & Evans 2001) is full information on access etc. for visitors. An appendix lists known presence or absence (though not status) of the 750 species on the Zambian List, from each of the 42 sites.

The IBAs selected cover some 14% of Zambia's total land surface, and 80% of this area receives legal protection (the national parks system in Zambia is representative of most

habitat types). The avifauna of Zambia is relatively well known, and a commendable aspect of this study is the attempt to identify at least one site for all Zambian species (only five regular species are not covered, and each is only of marginal occurrence). Some 20 globally threatened species are known from Zambia, the country being of special importance for the conservation of, e.g., Slaty Egret *Egretta vinaceigula*, Wattled Crane *Bugeranus carunculatus* and Denham's Bustard *Neotis denhami*. Sites requiring special attention include the Kafue Flats (a wetland of international importance for congregatory birds, under pressure from hydrological, agricultural and other sources) and the forests of north-western Zambia (being rapidly cleared by subsistence farmers, and including no effective, legally protected area). Despite the fact that Zambia has suffered less from human pressure on the natural environment than many other countries in Africa, there are many matters of concern, clearly presented here.

The whole work is embellished with numerous clear and detailed coloured maps, tables and illustrations (of habitats, birds and a few large mammals). A small drawback is that the dark colour used in some tables makes the data difficult to read. The artwork is excellent, the line drawings by Pete Leonard himself being invariably first class, in a variety of artistic styles. Most of the bird photos used are excellent, a few unavoidably less so; it is good to see such regional endemics as Black-cheeked Lovebird *Agapornis nigrigenis* and Chaplin's Barbet *Lybius chaplini*.

The clear and attractive presentation of essential facts in this book makes it, to my mind, one of the most successful of these IBA updates. It is a handy size (17 × 27 cm), and its extremely reasonable price has been made possible by generous grants from the Wildfife Foundation and two Norwegian agencies. It should not only appeal to birders, who will appreciate it as a guide to where to find birds in this beautiful, largely unspoilt, country, but it should also impress Zambians, stu-

dents and (one hopes) politicians and other decision makers alike.

R. J. Dowsett

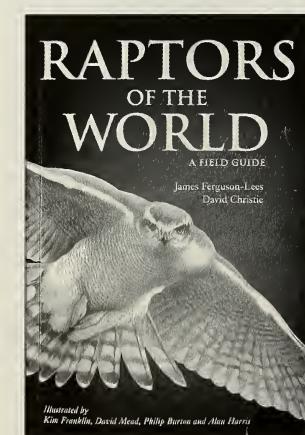
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Raptors of the World: A Field Guide

James Ferguson-Lees and David A. Christie, 2005. Illustrated by Kim Franklin, David Mead and Philip Burton. London, UK: Christopher Helm. 320 pp, 118 colour plates and numerous black-and-white drawings and maps. ISBN 0-7136-6957-8. Price UK£19.99.

Raptors are pretty well covered by identification guides, provided you are interested in Nearctic, Palearctic, Australian or southern African raptors. Worldwide overviews are scarce and bulky, like *Eagles, Hawks and Falcons* by Brown & Amadon (1968), Volume 2 of the *Handbook of the Birds of the World* (1994), and *Raptors of the World* by Ferguson-Lees & Christie (2001). The latter book is now trimmed into a field guide covering all 338 (or so) raptor species, and at a quarter of the original weight (2.5 kg) should be within the range of birders travelling light. The extensive species texts, some introductory chapters and the majority of the references were eliminated. Six new plates comprising 65 images were painted by Alan Harris, and maps were substantially corrected and updated. The opportunity was lost to replace or redo less satisfactory plates that were obviously skin-based, such as Honey Buzzards (strange-headed, big-eyed), Chanting Goshawks, Accipiters (big-eyed, round-headed birds in strong colours) and falcons (big-headed and sturdy-clawed, lacking the elegance of live birds, as for example in African Hobby *Falco cuvierii*). But overall, the plates, being the main body of the present guide, are of high quality, showing birds perched and in flight, and of various subspecies, ages, sexes and morphs, where appropriate. Even the smallest insets, showing typical behaviour, work well. My favourites are the vultures (the African species having a wider array of plumages than shown in regional field guides, but for Hooded *Necrosyrtes monachus* and Rüppell's *Gyps rueppellii* only juvenile and adult are shown), harriers, buzzards and (hawk) eagles. Main identification features are described in succinct texts opposite each plate. Given the restrictions posed by space (over 2,000 illustrations, crammed onto 118 plates), artists and authors did a miraculous job. Inevitably, there is always room for improvement. For example, the Yellow-billed Kite (here renamed *Milvus aegyptiacus parasitus*) is illustrated with six-fingered wings (instead of five), and the text is not helpful in separating juveniles of *migrans* and *parasitus* (a standard problem for those visiting Africa in the Eurasian winter). Also, recently snake eagle identification made a leap forward with the publications of Clark (*Bull. Br. Ornithol. Club* 122: 156–157; *Bull. ABC* 7: 13–17; *Bull. ABC* 12: 150–152) and Campora & Cattaneo (*Br. Birds* 98: 369–376). And I guess that (sub)specific identity in the Peregrine *Falco peregrinus* and *Hierofalco* groups will (forever?) remain difficult, further aggravated



by the widespread production of hybrids for falconry purposes. In the Lanner Falcon *Falco biarmicus*, African subspecies are more likely to be identified on the basis of geography than plumage characteristics, and separating juvenile Lanners from ditto Sakers *F. cherrug* is—also when using the present guide—far from easy where the two co-occur (as in East Africa). Juvenile and immature plumages in many other species are still not adequately described, and there is much to be discovered by local birders who can follow individual birds for years (either in captivity or in the wild).

This guide is an essential tool for raptorphiles. Reliably identifying species, ages and sexes is crucial to fruitfully endeavour into the real thing: the study of the life and times of this fascinating group of birds. For Africa aficionados, this guide presents a perfect alternative to the *Sasol Birds of Prey of Africa and its Islands* (by Kemp & Kemp) and *A Photographic Guide to Birds of Prey of Southern, Central and East Africa* (by Allan).

Rob G. Bijlsma

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Notes for Contributors

The ABC welcomes original contributions on all aspects of the birds of Africa, here defined as the area covered by Collar, N.J. and Stuart, S.N. 1985. *Threatened Birds of Africa and Related Islands: The ICBP/IUCN Red Data Book*. Cambridge, UK: International Council for Bird Preservation, namely continental Africa, Indian Ocean islands west of 80°E, e.g. Madagascar, the Mascarene Islands and Socotra; Atlantic Ocean islands on or east of the mid-Atlantic ridge, e.g. the Tristan da Cunha group, the Azores and the Canaries.

Contributions will be accepted subject to editing and refereeing by independent reviewers, where appropriate. The Editorial Team will be happy to advise authors on the acceptability of material at draft stage if desired.

Submissions

Two hard (printed) copies should be sent unless submitting by e-mail (preferred) to the editor's address on the inside front cover. Typewritten manuscripts should be double-spaced, on one side of the paper only, with wide margins all round. All submissions are acknowledged.

Contributions are accepted in English or French: French summaries are required for all

papers published in English, and vice versa. Those submitting papers should supply a summary for translation into English, or French, as appropriate.

If you submit your contribution on CD or floppy disk, please state computer (e.g. IBM compatible PC, Macintosh) and word-processing package (e.g. Word, WordPerfect) used.

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Preferred names

Given the current instability over worldwide lists of bird names, authors are requested to follow those used in *The Birds of Africa* Vols. 1-7. The African Bird Club has recently published (www.africanbirdclub.org/resources/

[checklist.html](#)) a checklist of birds in its region. This is based on *Birds of Africa* but incorporates more recent revisions where appropriate. It includes preferred scientific, English and French names, as well as races and alternatives used by publications widely used in Africa. For bird names this list should be used or at least the preferred name used there should be given as an alternative. For non-*Birds of Africa* species (e.g. from the Malagasy region) use Dowsett & Forbes-Watson (1993). Deviation from such works should be noted and the reasons given. The Editorial Team will keep abreast of changes in nomenclature and when an agreed list of African names is available, will consider switching to follow it.

Style

Authors are requested to follow conventions used in *The Bulletin of the African Bird Club* and to refer to a recent issue for guidance. A detailed style guide can be obtained, either electronically or as a hard copy, on request from the Managing Editor.

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The Club aims to appoint many further ABC Representatives. If you are interested in supporting and promoting the Club in your region, have any queries, or require further information relating to the ABC Representatives scheme please do not hesitate to contact the Membership Secretary at the Club address, e-mail membership@africanbirdclub.org.

ABC is seeking Country Representatives in the following countries, principally within the Club's region: Algeria, Azores, Benin, Burkina Faso, Burundi, Cameroon, Cape Verde Islands, Chad, Comoros & Mayotte, Côte d'Ivoire, Djibouti, Equatorial Guinea, Ethiopia, Gabon, Guinea-Bissau, Guinea Conakry, Libya, Madeira, Mali, Mauritania, Mauritius, Morocco, Mozambique, Niger, Réunion, Rodriguez, Rwanda, Senegal, Socotra, Somalia, St Helena, Sudan, Togo, Tristan da Cunha and USA.

Supported and Affiliated Membership

The Supporting Members scheme is a key part of the Club's strategy of encouraging the spread of knowledge and understanding of birds as widely as possible throughout Africa. The scheme enables Africans who would not otherwise have the resources to join, to become members of the Club. The scheme is funded by Supporting Members who pay a minimum of UK£30 to cover their own membership and the subscription of at least one African member. The money they contribute over and above their own subscription is placed in a special fund that is used to cover the membership expenses of African members whom they may have nominated, or who have been nominated by other Club members.

Although we have suggested a minimum of UK£30 to become a Supporting Member, any contribution is welcome. All members of the Club, even if they do not feel able to become Supporting Members themselves, are invited to nominate candidates for supported memberships. Candidates should be nationals of an African country, with a genuine interest in wild birds but without the resources to become members in their own right. Africans who think they

may qualify are very welcome to put their own names forward, supported by a letter of recommendation from someone such as their employer, teacher or an officeholder in a local wildlife organisation.

The scheme now also includes clubs who wish to be affiliated with the African Bird Club in African countries where it is difficult for local individuals to become members in their own right. Clubs accepted for membership under the scheme receive up to six copies of each issue of the bulletin for circulation among their members. Instead of paying a membership fee, Clubs are asked to provide a short annual report on their activities that may be published in the bulletin. Clubs interested in becoming Affiliated Member Clubs are invited to apply to the ABC Secretary giving details of their membership, their constitution or a statement of their objectives and conditions of their membership, and their activities to date.

ABC Information Service

ABC offers a service to help members with information requests. Perhaps you are planning a trip to Africa and need local advice, or maybe you are in search of an obscure fact about an African species. The Club does not guarantee to

find all the answers but will try to help. The service is free to ABC members. Contact: Keith Betton, who is also custodian of ABC's journal library, at 8 Delves Close, Folly Hill, Farnham, Surrey, GU9 0DR, UK. Tel: +44 1252 724068. E-mail: info@africanbirdclub.org.

AfricanBIRDING

e-mail discussion list

Launched, in October 2000, by the ABC and the Pan-African Ornithological Congress, AfricanBIRDING or AB, as it is known, has become a useful forum for those interested in African birds. To join the discussion, which averages 1-2 messages a day, send a blank e-mail to AfricanBIRDING-subscribe@yahoogroups.com. You will then receive an e-mail instructing you how to join.

The Club also maintains a list of members' e-mail addresses. This list is confidential and used only for Club purposes, e.g. for informing members of upcoming events and news concerning the Club. It is not divulged to anybody outside the Club or used for commercial advertising. At present it includes addresses for about 50% of the membership. Please send any additions or amendments to the membership secretary: membership@africanbirdclub.org.



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